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TECHNICAL EDUCATION IN EUROPE.

VI.—WÜRTENBERG.

In the first of this series of articles, it was announced that they would be compiled from the British Blue-Book containing the replies of the English ministers abroad to Lord Stanley's circular calling for information regarding the state of Technical Education on the Continent.

We make an exception of this article, for the reason that the State we have chosen for review is not represented in those reports. A very full statement of the educational system of Württemberg, however, compiled from the reports of the Minister of Education, is given by the eminent English advocate of industrial schools, Mr. J. Scott Russell, in his recent work entitled "Systematic Technical Education." From that book we derive the material for this article, our space permitting us to give only the barest outline of the great and varied educational work done by this "model nation on a small scale," as Mr. Russell justly calls it.

At the head of the system stands the Polytechnic University of Stuttgart, which is designed to educate the highest classes of professional men. This institution provides five courses of instruction of one year each, divided into two branches, the Mathematical and the Technical. The former consists of two, and the latter of three classes. The Technical branch is subdivided into four schools : 1. For Architecture ; 2. For Engineering ; 3. For Machinery ; 4. For Technical Chemistry, with the subdivisions, (a) chemical manufactures ; (b) mines ; (c) pharmacy. There is also a parallel class for the training of merchants. Besides these there is a course of general superior scientific and literary education for professors, lecturers, and men of leisure. The building appropriated to the division of practical instruction forms one of the finest piles of modern

architecture in Stuttgart. Besides the usual lecture-rooms and studies, there are a chemical laboratory, a physical laboratory, mineralogical museums, laboratories for constructive experiments, plaster-modelling rooms, mechanical workshops, wood-modelling rooms, rooms for drawing, a botanical garden, and an astronomical observatory. The staff of instructors, besides the director of the entire institution, consists of 24 head-masters, 9 under-masters, 11 assistants, and 7 private tutors. In the winter-term of 1865-6, there were in attendance 468 students and scholars, of whom 163 were in the mathematical and 305 in the technical division. In the summer-term, the number was 393,—149 in the mathematical and 244 in the technical division.

The college for the Building Trades, also in Stuttgart, is even more important than the University. At the University the scale of education is too high and broad, and its quality too ambitious for any but the highest members of any technical profession or trade. The more ordinary and numerous members of the trades and professions, who need quite as much a thorough practical training, find themselves insufficiently educated to enter the University, and without leisure to devote to it the long and continuous time necessary for its courses. A narrower course is wanted for foremen and clerks of works, and for directors and managers of small sections of works; and it is desirable that the humblest craftsman should be able to get such an education, as, with intelligence, diligence, and probity, may enable him to rise to distinction and skill in some one thing.

Appreciating the needs of these classes, some of the most distinguished directors of the Technical University represented to the Government the expediency of forming for them a new school, which was accordingly established. This school succeeded so quickly and so completely, that it became necessary to erect quite as large and handsome a building, and to employ quite as large a staff of instructors, as for the original polytechnic university. It is now one of the most remarkable and meritorious schools on the continent. The men whom it was especially designed to help in their trades are stone-masons, bricklayers, and carpenters, to be trained for future master-builders; lower-class builders to be trained for master-builders, constructors of public works, subterranean works, and reservoirs; constructors of water-works, river-works, and mill-works, and land-surveyors of the first and second class. The general workmen whose education it undertakes, are plasterers, tilers, roofers, joiners and carpenters, glaziers, turners, decorators, ornament sculptors, modellers, engravers, smiths, gold and silver workers, gardeners, and husbandmen. Its great merit is its perfect adaptation to the wants of each separate class. For young men who are much employed in winter and less in summer, it provides summer courses of study, and gives them vacation in winter,

and *vice versa*. It has classes in the early morning, the same at mid-day, and the same again in the evening ; and the hours of the different classes are so timed that the pupil may attend many or few hours of the day, and still obtain the instruction he requires.

This school is presided over by the most distinguished architect of Würtemberg, with no fewer than twenty-eight professors and masters under him. Systematic courses are provided for those who can go through the education required to obtain certificates of competence ; and their estimation of its value is proved by the fact that the school is crowded by exactly that class of men whom it was intended to benefit. The attendance the winter-term of 1865-6, was 587, of whom 475 were actual builders. During the summer of 1866 there were 115 pupils, 87 of whom were builders. Of the 702 different scholars in attendance during the year, 272 were between the ages of 14 and 17; 404 between 17 and 25; 17 between 25 and 30, and 9 were over thirty years of age.

Subordinate to this institution are the Higher Trade Schools, of which there were, in 1865-6, one hundred and eight, divided according to their interior arrangements into the following groups : (a) 4 finishing schools, with public rooms for drawing and Sunday and evening classes for trade; (b) 11 finishing schools, with public rooms for drawing, and Sunday and evening classes for tradesmen and merchants; (c) 81 finishing trade-schools with Sunday and evening classes, but without rooms for drawing; (d) finishing trade-schools with evening classes but no Sunday classes; (e) 2 trade-schools with Sunday teaching only; (f) 6 pure drawing-schools with no further instruction. The attendance at these schools is about 9,000 pupils, with an average of one master for every twenty pupils.

The next class of institutions are wisely situated, not in the metropolis, but in the country. They are schools for country occupations and trades, and are called "agriculture and forestry establishments." There is, first, the College of Agriculture and Forestry in Hohenheim, with twenty-one masters. It is divided into the Academy of Agriculture and Forestry; the farming school; the gardening school, and special agricultural courses. There are under it three practical farming-schools in three different districts, and each school has under its care State domains comprising from 400 to 500 square miles. A large brewery is attached to one of these establishments. Subordinate to these schools are others distributed throughout the country; and in addition to these are 523 obligatory winter-evening schools, with instructions in farming, free finishing-schools for farmers, evening meetings, lectures, etc., affording agricultural instruction to over 12,000 persons.

The Veterinary College at Stuttgart is an institution for instruction in the anatomy, physiology, training, and diseases of animals. The school year of 1865-6, it numbered four head-masters, 4 assistants, and 57 pupils.

Attached to the college are hospitals for horses, cattle, and other domestic animals, in which 1,936 animals were treated ; and a smithy, in which 4,000 animals were shod.

The School of Art-workmen, with five masters and four assistants, gave instruction to 50 pupils, of whom 12 were painters, 18 were sculptors, and 5 were lithographers.

With such upper schools for the technical training of the people, it will be readily imagined that there must be a complete organization of schools leading up to them, otherwise these higher schools could not be filled with pupils possessing the requisite preliminary qualifications. There are, accordingly, eighty-eight academies and science schools, separated into the two divisions of classical and science schools, and a large number of elementary and industrial schools. In the classical schools there were, on the 1st of March, 1866, 4,565 pupils and 246 masters ; in the science schools there were 4,734 pupils and 143 masters. The classical schools are subdivided into gymnasiums and lyceums ; and the science schools into real schools and science colleges. Immediately below these are the public elementary schools, and establishments for private instruction ; and auxiliary to these are technical schools of the humblest kind, in which girls are taught to be housekeepers, and boys are trained to the simplest duties of life. These industrial schools number 1,450, and give instruction to over 50,000 pupils, the great majority of whom are girls.

The amount of technical education that the United States would have to provide, to rival in this respect the wise munificence of Würtemberg, may be estimated from the statistics we have given, taken in connection with the fact that the entire population of that unpretending State is little if any greater than that of the cities and villages clustered around the harbor of New York.

It is hardly necessary to add that the influence of such systematic and thorough education of the working-classes is of the happiest and most beneficent character, on both individual and national prosperity. In every country where technical education has taken root and had time to bear fruit may be found proofs of the rapidity with which increased intelligence brings increase in employment and remuneration. "From my personal experience," says Mr. Russell, "I may say that within the last twenty-five years I have seen large branches of commercial trade leave one country and plant themselves in another, because the workers of the one were educated and those of the other uneducated ; I have watched nations rising into importance and power in Europe by education, and by the order, organization, and efficiency which education bestows ; and other nations lagging behind and losing power by reason of their unwillingness to educate either the higher or the lower classes of their people."

OBJECT-TEACHING ACCORDING TO THE OSWEGO METHOD.

THE most vicious teaching that is done at this day is misnamed Object-teaching ; and it is done by teachers trained at Oswego.

We have received for publication from graduates of that institution (teachers noted—we might almost say notorious—for their denunciation of the old-fogy methods of teachers not of their school), “Model Lessons” fearfully and wonderfully made in violation of every rule of true teaching, not to say every principle of common sense. If they had been prepared solely to burlesque the genuine Object-method, they could not have done it more successfully. That they were prepared with the best of intentions, we have no reason to doubt ; while their general style is so uniform, and so consistent with the style of the head of the school, that we do not doubt their fairly representing the general character of the teaching done at Oswego. It would be impossible for so many different teachers to evolve from their individual consciousness, as a German would say, so many different “lessons” on exactly the same “model.” They must have been trained to do it.

We will illustrate what we mean by the most vicious of modern teaching, by giving entire a specimen “model lesson ;” and that we may not be charged with manufacturing our model, we will take one already in print—one of a series of “Object-Lessons for small children,” which have appeared in the *California Teacher* the past year. They are the work, we understand, of “a thoroughly trained graduate of Oswego,” gone to the Pacific Coast to carry thence the pedagogical New Light. In justice to the author, we will say that the “lesson” we select for reproduction is not wholly of her own devising. It constitutes a part of each graduate’s stock in trade ; and in its present form is perhaps an improvement on the original, which may be found on pages 68, 69, and 70 of her master’s “Lessons on Objects.” Here it is :

CHALK.

- (1) What is this ? A piece of chalk.
- (2) Where does chalk come from ? From the earth.
- (3) To which of the three great kingdoms does it belong ? To the mineral kingdom.
- (4) Why ? Because it is an inorganized substance dug out of the earth.
- (5) What is the meaning of inorganized ? Without organs of life.
- (6) Name something that is organized, and tell me one of its organs. Animals are organized, and the heart is an organ.
- (7) Can you tell me what those places are called out of which chalk is taken ? Chalk-pits.

- (8) Is chalk a natural or an artificial substance? Natural.
 (9) Why? Because God made it.
 (10) Tell me something else about it. It is opaque.
 (11) What do you mean? We cannot see through it.
 (12) Is it solid or liquid? Solid.
 (13) Why is it not liquid? It will not form into drops.
 (14) What is its color? White.
 (15) You have told me that silver is bright; is chalk bright, too? No, it is dull.
 (16) See how easily it breaks! Yes, it is brittle.
 (17) Take a piece in your hand, and smell of it. It has no smell.
 (18) What would you say if it had a smell?
 (19) We would say it was odorous. Well, *inodorous* is the word which means without smell; so chalk is—what? Inodorous.
 (20) Put it to your tongue, and tell me what you observe. It sticks to the tongue.
 (21) Rub it. It crumbles.
 (22) Yes: repeat in concert, "Chalk is crumbling."
 (23) Have you ever seen chalk used? Yes: it is used to write on the blackboard.
 (24) What quality makes it useful for this purpose? That of being crumbling.
 (25) Now, repeat in concert, all the qualities of chalk, and its use.
Qualities—Mineral, natural, opaque, solid, white, dull, brittle, inodorous, crumbling; it sticks to the tongue.
Use—To write on the board.
 (26) Now, children, I am going to ask you a question, but you are not to answer it to-day. I want you to think of it, and ask your friends about it, so that you may be prepared with the right answer to-morrow.
 (27) Is chalk found in the earth in the shape of these nice little sticks?

The last question lets us into the secret that the "nice little" object, which is the subject of this interesting lesson, is *not* chalk, but a compound of gypsum, paris-white, etc. That, however, is of no consequence, so long as such plaster crayons are popularly known as "chalk," and the purpose of the lesson is to lead the children to discover the obvious properties of the "object" in hand.

Chalk "comes from the earth;" of course it does. Where else would it come from—the moon? And it belongs to the mineral kingdom. The small children know that, at first sight; and they know, too, what the mineral kingdom is, for that is about the first bit of information they have to swallow—according to the Oswego method. The wherefore of its belonging to the mineral kingdom is most conclusive. "It is an inorganized substance dug out of the earth," and all inorganized substances dug out of the earth (and no others) belong to the mineral kingdom—according to the philosophy of Oswego. But what happy "small children" these model infants must be to know such wonderful things! And what prodigies of wisdom they must be to be able to tell inorganized sub-

stances at sight, and to explain what "inorganized" means,—according to the Oswego system. Of course they know what it is to be "without organs of life!"

The 6th question is "hove in," evidently by way of variety, as the Western orator served his few remarks. The answer is pertinent and wonderfully comprehensive for a reply to a request to name something: so comprehensive, indeed, that it is slightly ambiguous, not to say inaccurate. But that is characteristic of the fruits of training according to the Oswego method. Its disciples use language with fearful looseness.

No. 7 is also characteristic, that is to say, utterly irrelevant. Either the children know the answer, or they don't know it. If they know it, there is nothing gained by the question. If they don't know it, they never could find it by any objective study of the subject in hand,—even when trained according to the Oswego method.

No. 8 is another characteristic question. Bearing in mind the composition of the subject-object, and its "nice" appearance, it is quite astonishing that a class of "small children" should so promptly discover it to be a *natural substance*—"because God made it!"

Answer No. 11 blunders on an observable property of the "object:" it is opaque. If there were a hole in it so that these penetrating small children could "see through it," they would, doubtless, call it something else, transparent, perhaps. No. 12 hits another property. No. 13 reads like a conundrum. "*Why is it not a liquid?*" A person not trained according to the Oswego method would certainly give it up. An ordinary child would be likely to venture the only reasonable reply—"Because it's *solid*," and think the teacher a dunce for asking such a silly question. But these model small children, having tested the matter thoroughly, know better—"It will not form into drops!"

That such obvious properties of an object as its color and brittleness and lack of odor should be noticed in an object-lesson of this sort, only serves to show how accidentally some things will get done in the right way. That the children should be called upon to "observe" with their tongues is not surprising, though somewhat exceptional, inasmuch as most of the "observations" made according to the Oswego method, are made with the ears.

No. 21 is legitimate. No. 22 is—say it again little ones, say it again *in concert*—"Chalk is crumbling!" But don't stop rubbing it or it will stop "being crumbling." The usefulness of this peculiar quality of chalk—"the quality of being crumbling" (crumnable?)—will scarcely be questioned, provided one is willing to admit that chalk *is* crumnable: but it is a funny observation which goes to show that this is *the* quality which makes chalk useful "to write on the board."

Now, while the small children are repeating *in concert* "ALL the

qualities of chalk" (*mineral!* NATURAL!! etc., discovered by studying a "nice little stick" of plaster), not forgetting its single use, let us ponder the question: How many object-lessons of this sort would it require to make a class of ordinarily bright "small children" as formally stupid and pretentiously ignorant as this trained teacher of teachers proves herself to be?



OUR POPULAR SCHOOL-BOOKS.

IV.—ENGLISH GRAMMARS.—(Concluded.)

KIRKHAM'S Grammar has long been a favorite in certain quarters: yet we do not admire the author's manner of presenting the subject in the form of lectures, and jumbling etymological and syntactical principles promiscuously together. There is much mere verbiage not only among the foot-notes, called "philosophical" and "critical," but also in the body of the work. Mr. Kirkham's fondness for Horne Tooke and for his mode of dealing with certain points, is, to say the least of it, a matter that should be less conspicuously displayed in a text-book for youth. It might be added also that the work has by far too many syntactical rules, which the exercises in syntax for correction are too few for thorough, practical instruction.

Mulligan's work, as already intimated, is strictly an English Grammar, keeping more closely to the subject than any other that we know. But it is not adapted to school purposes, unless it may be as a finishing work for higher classes. As a college text-book it might answer very well, were English grammar one of the studies embraced in a college curriculum. The author's treatment is systematic; but his classifications and his terms therefor are perplexingly numerous, difficult of remembrance, and of little practical value. As a whole, however, the work is thorough, and well expressed, not confounding words with thoughts, which is more than can be said of English grammars generally. Most teachers might be benefited by a careful perusal of the book; though but few probably could employ it advantageously as a text-book.

Parker's book is a peculiar production. It can hardly be called an infringement on Clark's copyright; and yet it looks very Clarkish. Like Clark's book, it begins, or, to use the author's characteristic word, "commences" with analysis, and toward the close (p. 273) introduces what he calls "Analysis by arrangement," which is simply Clark's diagrammic analysis without the circumambient lines. If we understand the author, he "has commenced with analysis as the basis of his system," because he

is confident that this course will "reconcile such differences of opinion" as some teachers seem to have "on some points,"—a very important consideration, we must say, for one who is about to make a text-book for youth. On page 14 he tells us, with refreshing coolness, that "we cannot teach syntax or even etymology on fixed and sure principles without analysis." What effect his method has had on his own syntax, may be seen in his book. He wants to tell us, on page 54, what *articles* are; and he says, "*An Article* is the word THE, or the word AN OR A, used," etc.; that is, he attempts to define a generic term by particularizing the individuals it covers. Several other specimens, showing the advantage of putting analysis before, and, we may add, above syntax, might be given. The following must suffice. "*The, an, or a, used before a noun to limit its signification, is an article;*" p. 130. "*Many* is sometimes used before a *A* and a singular noun;" p. 148. "*The subjunctive mood is only used in a dependent clause;*" p. 163. "Etymology and syntax are treated of together, for the reason that the former depends so much upon the latter that it is impossible to even classify a large number of words," etc.; p. 4. The reason given in this last extract for treating etymology and syntax together, namely, because the classification of words depends on their use, would afford as strong an argument in favor of treating orthoepy and syntax together; for who can tell how *bowl*, or *wind*, or *conjured*, or *corps*, or many another word is to be pronounced, unless he knows how it is to be used? As a reason for commingling different subjects, it is, like much of the book, extremely crude. We say "crude;" for it would be difficult to find another text-book having so many rare and ill-digested remarks as this has. On p. 31, we find that "in an interrogative proposition the subject *always* follows the first word of the predicate; no inversion is allowed." Yet we say, "*Who goes there?*" "*How many men were present?*" To assure ourselves that these are what Parker calls "interrogative propositions," we turn to p. 19, and read, "An interrogative proposition contains a question or interrogation." This, though not a definition, shows that the foregoing sentences are what Parker calls "interrogative propositions." They also show the value, such as it is, of the above remark. On p. 32, he says, "Not *always* follows the first word of the predicate in a declarative or an imperative proposition." He forgot that we can say, "*Not a drum was heard;*" "*Not one of them was there;*" "*He not only was present, but spoke;*" etc. On p. 110, we are told, "The relative pronouns are *who*, *which*, *whal*, *that*, and *as*, and some compounds of the first three." Then, on p. 115, we find such crudities as these: "A relative pronoun (1) *must* (2) *immediately* follow its antecedent, and must (3) *begin* a relative clause, except that a governing preposition, infinitive, or participle is placed before *whom*, *which*, *what*, or *whose*, or a compound of

one of them." In illustration of the correctness of which, we give (1), "Who hath ears to hear, let him hear." (2) "It was the man who engaged him, that discharged him." (3) "We came to the building, at the side entrance of which he fell." Again, "A finite verb never precedes the [a?] relative." Example, "I have what you want." Also, "A relative clause, unless very short, should be separated from the context by commas." The length of the clause has nothing whatever to do with the matter. On p. 116, he gives the following original rule, illustration, and supplementary note: (The punctuation is his own.) "A singular collective noun as antecedent, requires a plural pronoun when separate or different action or state of the individuals is implied; as, The assembly were divided in their opinions. We were divided in our opinions [Query. Is we here "a singular collective noun?"] If no difference is implied, or if a majority decides for all, the pronoun representing a singular collective noun, must be singular and neuter." That is, if an assembly is agreed upon any measure, we ought to say, "The assembly are agreed in its opinions!" or, if a majority of them decide upon the publication of their sentiments, we are required by this rule to say, "The assembly decided to have its views made known!" On p. 118, he says, "The nominative relative is seldom omitted, and only in poetry." In proof of which, take the following sentence: "Parker's Grammar has more faults than () can be mentioned." Crudities like these, embodying nothing of any value at the best, are scattered up and down the volume on almost every page. In going over the book, we have noted an incredible number; and, what is the worst of it, their crudeness is unnecessary: they show that their author has not really tested them. They proceed, undoubtedly, from the author's desire to be precise. But zeal for precision is no apology for slovenly errors.

Pinneo seems to consider the forming of sentences, the filling of blanks, and the arranging of a set of given words into sentences, an essential feature of a grammatical treatise. He calls upon the pupil, for example (p. 12), to form a number of sentences on the model of "one which shall contain the noun *Mary* and a pronoun;" (p. 18) to fill the blank in sentences like "John came () the city," with an appropriate preposition; (p. 114) to supply the omitted modifying words in forms like "() trees fall ();" (p. 201) to arrange in a sentence words like "Caesar's, then, was, object, what?" The same thing, or something very similar, may also be found, to a greater or less extent, in Clark's Grammar (pp. 47, 49, 50, 96, etc.), Greene's (pp. 42, 43, 52, etc.), Kerl's (p. 3 [where among other things he requires that a suitable pronoun be substituted for the words in italics in the sentences "The apple lay under the *apple's* tree," "The gun was brought, but the *gun* was out of order," the article not being included among the italicized words], 6, etc.), Par-

ker's (pp. 23, 29, 30, etc.), Quackenbos's (pp. 31, 72, 77, etc.), and Wells' (pp. 38, 42, 66, etc.). But such exercises are practically of no value. They are, for the most part, mere puzzles; or, if not puzzles, mechanical performances, teaching neither grammar nor composition. There is, however, a great difference among these authors as to the amount of space given to these exercises. While Quackenbos gives comparatively little, Pinneo seems to think it impossible to give too much.

There are many good points in Pinneo's, as there are in the other grammars in our list. But there are also some things that ought never to appear or to be inculcated in an English Grammar. Of these we have space for two or three only. 1. The giving of the form *You was*, *You was loved*, in the paradigm of the verbs *to be* and *to be loved*. Whoever may use this form, it is but a vulgarism at best. It would be quite as just and scholarly to encourage the use of *We was*, *Is you?* Pinneo, however, is not alone in encouraging this *you-was* vulgarism. Clark, in his paradigm of the verb *to be*, p. 124, gives *you was*; then, in a footnote, adds, with a degree of *nonchalance* bordering on impudence, "*Some good writers* use the plural form of the verb (*were*) in addressing one person;" just as though good writers generally used *you was!* 2. The parsing he gives of *mine*, in such a sentence as "Samuel has lost his book, but *mine* is safe;" p. 49. He says it "stands for *my book*, and, as such, is used as the nominative to *is* [Whether in the first or the third person he does not say], and the adjective *safe* qualifies it." He might as truthfully say that, in the sentence, "Samuel has lost his book, but *John's* is safe," *John's* stands for *John's book*, and as such is nominative to *is*, etc. The author of a grammar ought to know that *mine* is but another form for *my*, as *none*, in such a sentence as "Silver or gold I have *none*," is only another form for *no*, and that the two forms should be parsed precisely alike. 3. The condemnation of such idiomatic forms as "The canvas was made use of;" "He was lost sight of;" p. 151. These he pronounces "incorrect," and proposes instead of them, as correct English, the phrasing "Use was made of the canvas," "Sight of him was lost!" The special rule under which these examples are placed, reminds us of another of Pinneo's faults. In very many instances he lacks adaptation in consequence of being too general. Thus, the rule referred to reads, "Avoid the *incorrect* use of the passive with an object." So, p. 170, "A collective noun may be nominative to a singular or plural verb, according to the sense;" and, p. 180, "Avoid giving the wrong tense of the infinitive;"—valuable directions, no doubt, provided the pupil knows *how* to follow them!

Quackenbos's book shows, at a glance, that it is the work of a teacher; that is, of one who knows something about *how* to impart knowledge. It is divided into short lessons, followed by exercises enforcing the prin-

ciples taught. These exercises are practical, and generally very well adapted to the purpose designed. We think the author errs, however, in trying to do away with the neuter gender—the result of a misapprehension of what gender is,—and in introducing the rules of syntax in connection with etymological principles. There are many things in this book that are plainly improvements on other grammars; but there are other things which we cannot account for. Thus, the second person singular of the “Imperfect” Subjunctive of the verb *to be*, is given “If thou *were*.” This, we considered, at first, a mere misprint. But, on examination, we find it is not. The corresponding form of the verb *to rule* is given “If thou *ruled*, or *did rule*;” and of *to be ruled*, “If thou *were ruled*.” If this is right, we should like to see some of Quackenbos’s authorities for it. We cannot help adding that the treatment here given of the Subjunctive Mood is, in general, very unsatisfactory. On p. 114, the second person singular of the Imperfect Indicative is given as “Thou wast or *wert*.” *Wert*, we admit, is sometimes used indicatively by the poets; but, when used thus, it is by poetic license. After declining *whoever*, p. 65, “*Nom.* Whoever, *Pass.* Whosoever, *Obj.* Whomever,” he says, p. 66, “As antecedent, *whoever* is in the *objective case*!” Some of his dispositions of Infinitives are unaccountably curious. In the sentences, (1) “It is my duty to go,” (2) “For me to go would be wrong,” (3) “It is hard to go,” the infinitive, he says, p. 100, limits the meaning respectively of (1) a noun, (2) a pronoun, (3) an adjective! Quackenbos professes not to shun difficulties: instead of shunning them, he creates them, not unfrequently when it is perfectly unnecessary. Shall we illustrate? On p. 30, he defines (incorrectly) a collective noun to be “the name of a body of individual *living objects*,”—a definition that excludes such a word as *fleet*,—“The *fleet* have sailed up the Sound.” On p. 182, among “Difficult Constructions Explained,” he has the following: “A hundred [*collective noun*, always construed with a plural verb] people [*object of of understood*] may be killed, etc.; and on p. 225: “A hundred [*of*] swords were drawn.” In attempting—and it is only an attempt—to explain one seeming difficulty he creates another. He first defines a collective noun to be a *name of a body of living objects*. Then he gives *hundred* as an example of such a noun, though it is not properly a “name;” nor does it denote “a body,” any more than *twenty* does, or in fact any plural noun like *men*; nor yet, especially in such a connection as “a *hundred swords*,” is it a name of a body of *living objects*. As to the author’s attempted “explanation” of the construction, there may be those that like it: we reject it as utterly untenable. The truth is, that, while the book shows in certain points much practical skill and good judgment, there is such an amount of erroneous teaching in it, that we should shun it as a text-book.

Wells' Grammar displays, on the whole, an unusual amount of study and original matter. His examples and illustrations are generally new. This gives his book a peculiar freshness and an individuality which are really pleasant. But his treatment of the subject is not the most practical. On the Subjunctive Mood, for instance, he is almost as bad as Parker and Pinneo. Where he ought to have but three tenses, he has eight. This proceeds, of course, from the lack of a clear conception of the nature and functions of this mood,—in which, we admit, he is far from standing alone—and this being the case, he cannot be expected to give others a clear or correct idea of them. But what we most find fault with is the fact that, throughout the volume, there is a lack of system in enforcing the principles taught and in testing the learner's knowledge of what he has passed over. Especially is there a deficiency in exercises of faulty syntax for correction. These omissions render the book far less practical than it might otherwise be. And yet the author's conservatism and impartiality, everywhere observable, please and attract. They indicate a careful and faithful comparison of views, and awaken a feeling of confidence which others, more pretentious and more positive, cannot command. We are sorry that books which indicate so much painstaking, originality, and general fairness, as this volume and Kerl's do, should be so ill adapted to accomplish that for which they are intended. But so it is. Originality and care are commendable; but the true test of the value of a text-book is its success in achieving the practical ends for which it is professedly designed.

To express in brief our view as to which of these books is the best as a manual to aid one in acquiring a correct grammatical knowledge and use of the language, we will say that we hesitate not to give the preference to Goold Brown's Institutes. Not that we consider the book what it ought to be in every respect; not that Brown does not here and there teach error; not that he is in all points up to the times; not that his definitions and arrangement are unexceptionable, or as nearly so as they could be; but that, while in these and other respects he can bear comparison with others, in his general plan as well as for the most part in the details, especially in his exercises for practical drill, he is so far in advance of others that the time and attention required in going carefully through this book would serve one to greater advantage than if devoted to any other English Grammar we have ever seen. If one has not the time to spare that would be necessary to carry him carefully and thoroughly through this book, the next best thing for him, all things considered, is Bullions' Grammar. This is unquestionably an excellent—nay, as grammars are now made, a superior—work; but it is less full and less instructive, on the whole, than Brown's. Bullions', too, is more suitable perhaps for a younger class of pupils.

SECRET SOCIETIES AND DUELLING IN GERMAN UNIVERSITIES.

THE origin of what we would call secret societies in the German Universities, and what the Germans call *Corps* or *Verbindungen*, is almost coincident with the foundation of the first German Universities in the 14th century. They have represented, as far as we can trace their history, the different territories of the common Fatherland, and have always been of a strictly sectional character. Students belonging to the same territory associated with each other and formed leagues, to which they gave the names of their "smaller fatherland." Thus we met and still meet with the names of Saxons, Westphalians, Vandals, Hanoverians, Hanseates, Holsates, Frisians, Rhenani, Thuringians, Nassovians, Hessians, Brunswickers, Silesians, etc. Their badges consisted of the coats of arms of their sovereigns, to which the territorial colors were added. Thus the Saxons wore and are wearing still two different blues and white; the Westphalians, green, black, and white; the Vandals (Mecklenburgians), red and yellow; the Rhenani, blue, red, and white; the Nassovians, blue, white, and orange, etc.

As in the greater political arena, so in the narrower sphere of university-life, these "territories" were in a perpetual warfare with each other, only their feuds were not fought out in battles, but in single combats, in *duels*. All these associations were completely organized by constitutions and by-laws, and had officers, who were formally elected and who often wielded great influence and power. It happened not rarely that they took out formal charters from their home-governments. The central power of the German Empire took no notice of them, till in the beginning of the present century they interfered with the political questions of the day, and became formidable enough to make Austria, Prussia, and Russia tremble.

About the internal life of these associations in the former centuries, we have very little information. Still we know that they were a great obstacle to literary progress and culture. They perpetuated the mediæval rudeness which had already begun to disappear from public life. They were the natural supports and nurseries of that feudal tyranny which has always been the bane of Germany. No wonder that the territorial governments in the sixteenth, seventeenth, and eighteenth centuries countenanced and even encouraged their wild habits, and connived at the many acts of high-handed violence that were constantly perpetrated by the members of these leagues. There was a time when academic jurisdiction almost exclusively rested in their hands. Even the Professors

were subject to their discipline, and had to appear before their courts. Students not belonging to the leagues (we should call them now "*neutrals*," but the Germans name them "camels" or "savages") were almost pariahs in this peculiar social organization, some of whose strange privileges have been continued even to the present time.

The different Universities up to the present century had very great immunities; they formed States within the State, and were governed almost independently of the General and State governments. The highest authority was vested in an elective officer (one of the Professors), who was called *Rector* or *Pro-rector* (the king himself being the rector), with almost royal power, to whose insignia belonged the purple and the sceptre, and who bore the title "*Magnificus*," or "*His Magnificence*." We know that Rector *Lange* in Halle with his own hands took a student, who had been drafted into military service, out of the ranks, in the presence of the Generalissimo, Duke Leopold of Dessau, and that the latter, although surrounded by the Prussian army, suffered the humiliation, and lowered his hat when Rector *Magnificus* announced that he was acting as the representative of His Majesty the king. The whole jurisdiction over students was in the hands of the University; no civil magistrate was allowed to summon or to arrest a student. The Academic Senate, elected by the four Faculties, had the law-making power, while the executive power was wielded by the Rector, and the judicial power was in the hands of several Professors of the juridical Faculty. The Professors, as such, were what they are to-day—mere lecturers, without any disciplinary power whatever. The students dictated more or less the course to be followed by the Professors, and came to the lecture-room according to their own pleasure; they might hear the lectures of what Professor they chose. Recitations were out of the question; examinations took place only at the end of the three or four years' course, and then only for those that applied for the degree of Doctor. The conduct of the students outside the lecture-room was nominally under the supervision of the Academic Senate and the Rector, but was, in fact, in the students' own hands.

The leagues in every University constituted a community, which assumed the management of all affairs relating to the students' life; they even arrogated to themselves authority over the *citizens*, who generally obeyed the behests issuing from these informal courts. Each society delegated one or two representatives to a "General Assembly," called *Senioren-Convent* (*Convention of Seniors*). This *Senioren-Convent* wielded an almost absolute power, to which all the students belonging to

¹ This was the name of the Presidents of the different societies. Each University had its own *Senioren-Convent*, but frequently the different conventions corresponded with each other.

no Society (and these were always by far the majority) had to pay implicit obedience. The *Senioren-Convent* established a written constitution called the "Comment," in which the duties and rights of the students were minutely laid down. They summoned students and even citizens before their bar, and whoever refused obedience was declared "out of the pale of the academic community." Such an outcast might be offended or outraged by any one with perfect impunity; every intercourse had to be broken off with him. The very house where he lived had to be shunned by all students; the consequence of which was, that such an unfortunate subject could find lodgings only with the greatest difficulty. The academic authorities were powerless against the *Senioren-Convent*. A hint of the latter would rouse up all societies, and in fact all students. If the Academic Senate would not yield, a "secessio in montem sacrum" would be decreed, in imitation of the plebeians of ancient Rome. The students then left the town *en masse*, resorting to the neighboring villages, and leaving the lecture-rooms without a single hearer. Generally, all the trades-people, bakers, butchers, grocers, followed, and the city was left without food, without trade, the few inhabitants starving in awful loneliness. The end of such difficulties was regularly an embassy on the part of the Senate, often His Magnificence himself, a second Menenius Agrippa, at the head, repeating to the students the fable of the Stomach and the revolting limbs of the human body; but without any effect, unless the "refractory Senate" promised respect of the rights of the "Plebs." Such secessions happened as late as 1830 and 1831. If they were ineffectual, more serious measures would be resorted to, the last example of which is the renowned "Göttingen revolution" of 1831, when the students deposed all authorities, elected a Mayor and a Rector of their own number, and compelled the Academic Senate to do whatever they wished.

At the beginning of the present century, the "German student" had somewhat profited by the general advancement in culture and refinement; but everywhere mediæval traces might still be discovered. The garb of the student at this time was still altogether fantastic. High, stiff boots, called "*Canons*" (*Kanonen*), went up high over the knees, with tops wide enough to receive a giant. Enormous spurs, weighing several pounds, graced the heels. What was visible of the inexpressibles, consisted of white or yellow stout deer's skin. In lieu of a coat, the student wore a garment like that of a mediæval knight, with enormous collars. Round the waist and shoulders hung a scarf displaying the colors of the "society;" an enormous broadsword dangled at the left; the right was armed with a pipe of superhuman size, the bowl holding with ease a quarter of a pound of "Killikinick." The head-dress consisted, at festive occasions, of a gorgeous knight's cap, with plumes, again displaying

"the true colors;" on ordinary occasions, however, it was a cap (with the colors, of course), placed almost on one ear, and of so minute a size that it required great practice to balance it on the head. A huge ribbon round the breast displayed in large characters the "single combats" (duels) of the individual, showing the names of every antagonist. The face was often marked by deep scars.

Such was the exterior of the German student, as it is in the memory of persons still living. But among these bears, who speedily became tamed in professional life, names are found which, like Gotfried Herman, are shining as stars of the first magnitude in the heavens of literature. Their wild revels did not prevent them from their proper pursuits. While the ribald songs of their companions were yet ringing in their ears, their spirits were already deep in conversation with Plato and Aristotle.

It was in the year 1810, at the time of the deepest humiliation of Germany, when the Prussian government undertook the task of regenerating German life from its very root. The "Universities" had a prominent place in the debates on those things which needed a thorough reform. It was the good fortune of Germany that this whole question was left to the decision of William von Humboldt, Stein, and Altenstein. Never was a nation's fate in the keeping of nobler spirits, nor was ever a question intrusted to more competent minds. There were two opinions in the Council. The one opinion maintained that all the privileges of the Universities ought to be abolished, and that the students should be subjected to a rigorous discipline. The lectures should be assigned by the Faculty; the diligence of the students was to be controlled by recitations and examinations, according to the English plan; the outside discipline was to be controlled by the regular authorities. Only *literary* societies should exist under the control of the Faculties. Duelling was to be strictly prohibited and severely punished—even with death-penalty. The other opinion was for the maintenance of the old freedom of the students. It was true, they acknowledged, that the old system had many inconveniences. Many young men fell as victims of the unbridled freedom of a student's life. Many were wasting their time and health, accustoming themselves to pernicious habits, and becoming incapacitated for the serious duties of life. Some were crippled or even killed by wounds received in duelling, a habit that was incompatible with a well-regulated society. But notwithstanding all these drawbacks, they maintained the self-government of the students, because the evils caused by liberty were best cured by liberty itself. The proposed guardianship and pupilage would soon convert these noble and generous youths into slavish tools. All higher aspirations of the human soul were awakened by self-decision, not by constraint and compulsion. Science without liberty was only a dead possession, burdening instead of freeing the mind. Where

one out of a hundred young men had been ruined by a loose life, ninety-nine had gone through an invaluable school. It was far more desirable for the State to lose one or two citizens out of a hundred, with the rest braced by the stormy air of the Universities, than to create a sleepy and listless generation, caring only for worldly and selfish ends. Duelling should be restrained as much as possible ; but the time for the total abolition of a habit so deeply implanted in the nation, was not yet come. The students should be allowed to take care of this question themselves, and they would find better remedies against it than a regardless and cruel enforcement of the existing laws, which never before had been enforced. It was not even desirable to suppress this habit without replacing it by other institutions ; it would be like holding out an encouragement to the cowards, who now were subdued and stigmatized, but soon would raise their heads. While now personal courage and untarnished honor were the standards of public esteem, far less desirable qualities would soon take their place.

In the councils of the Government the latter opinion prevailed, and it was concluded to curtail the ancient freedom of the Universities only so far as it was absolutely necessary. But one new measure was introduced, which, as they believed, would counterbalance many of the evils springing from the previous system. This was a very rigorous test of the ripeness of those who wished to become students of a University. The examinations for admission were made so formidable, that only a perfect preparation in all branches of science would be the stepping-stone to the University. The Government judged that *a very high development of the mental qualities would be the best safeguard against all those temptations the student could meet with.* All German governments, Austria alone excepted, followed sooner or later the lead of Prussia, and time has abundantly proved that they were right. While in Austria everything was sleeping and going backward, the human mind has achieved its proudest triumphs in the North of Germany. We may say that German science would not be what it is, if in the year 1810 other councils had prevailed, and the Universities had been reorganized according to the "English" plan. And we may further say, that without these measures the *political* situation of Germany would be now as hopeless as it was during the latter part of the last and in the beginning of the present century. No Bismark could have arisen in an Austrian University : no army of Sadowa would have been ready to vindicate the eternal rights of the nation.

We had to go back so far, in order to make the present condition of the "secret societies" in German Universities perfectly intelligible to American students. In another article we shall try to describe the life within a secret society, and its code of honor, as it is observed in general, and especially in connection with the practice of duelling.

THE VENTILATION AND WARMING OF SCHOOL-HOUSES.**IV.**

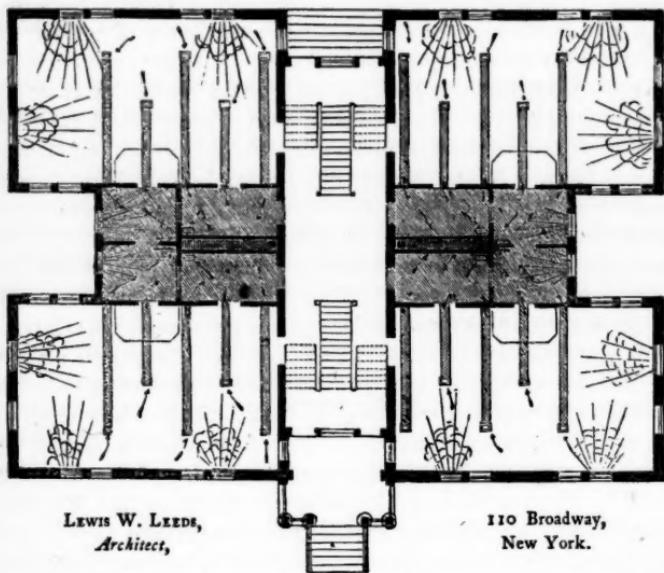
SUNSHINE, the great motive power of atmospheric movements, is the motive power of natural ventilation. It is also Nature's great disinfectant; and if there is one place more than another in which its influence cannot be dispensed with, that place is the school-room.

From the disregard of sunlight—direct sunlight—so noticeable in the construction, not only of school-houses but dwellings, it is to be feared that few persons realize how soon the walls, carpets, and other porous objects in a room become foul by the absorption of effete matter exhaled from the bodies of the occupants. A free circulation of air is of great value, as well for removing these exhalations before they can be deposited as for supplying fresh air for breathing. But mere change of air is not sufficient: a more powerful agent is required. Every lady knows (unfortunately) how soon direct sunlight fades the bright colors of her carpets and upholstery. Too few appear to know that the same blessed agent is equally energetic in dissipating the fever-breeding, consumption-causing air that pervades and clings to her carefully shaded furniture. We want fewer heavy curtains and closed shutters, and more sunshine in our public and private apartments.

Many attempts have been made to secure the thorough ventilation of buildings by currents of air produced by artificial means, to the entire neglect of natural ventilation; but always with disappointment. Ventilating engineers are apt to commence by calculating first how much each person will inhale or exhale in a minute, and then by making what seems to be a liberal allowance for the contamination of the surrounding air, endeavor to provide for the requisite supply of pure air. The results obtained almost invariably fall short of what is actually required. Especially in mild or close weather do these artificial arrangements fail. Then nothing short of the full sweep of the external air will answer. For rooms in which large numbers of persons are to be collected, it is a primary requirement that there be openings on every side, so that any outside currents of air, from whatever direction, may be made use of.

The subjoined plan is offered as a suggestion for the arrangement of a school-house, so that every class-room shall have one or more windows on each of its four sides, and a circulation of air between it and the adjoining class-room. Of course the necessary modifications to adapt this plan to the requirements of special locations will suggest themselves to every intelligent architect. The great point we have in view is to urge the

necessity of having every class-room open to the outside air on every side, so that it may be easily sunned and aired ; and to show how these advantages can be inexpensively obtained. Objections may be made to our arrangement of windows because of the great amount of light that would enter at them. That of course could be regulated by means of blinds. The direction of the light that strikes the pupils' books can be regulated in the same way. Blinds should be used on all the windows, because they are far superior to curtains in admitting a free circulation of air, while excluding the direct rays of the sun ; and the blinds should be *green*, because that is the color most agreeable to the eyes. At intermissions, and before and after school, the blinds should be opened to admit direct sunlight, the purifying effect of which is absolutely indispensable in keeping the school-room wholesome.



SUGGESTIVE PLAN OF A SCHOOL-HOUSE DESIGNED TO ADMIT LIGHT
AND AIR ON EVERY SIDE OF EACH CLASS-ROOM.

The evil of allowing the air of one class-room to pass into an adjoining room—a great defect in many of the school-buildings lately erected in Philadelphia and Brooklyn—was explained in a previous paper. It is entirely obviated by having each room communicate directly with the open air on all four sides. This plan also renders available for ventilation, as was noticed above, every variation in the currents of the external air. There are many times, however, when the air is quite still, and the

difference of temperature between the external and internal air is not sufficient to secure thorough ventilation through the windows. Artificial means must then be employed for removing the vitiated air. The system of flues for this purpose, connecting with the ventilating shafts between the wardrobes (the shaded portion of the interior), will be readily understood by those who have read the preceding articles of this series.

To accommodate the prevailing opinion, which requires a large collecting-room in every school-house, the partitions on one side of the hall may be omitted in the third story, and the recess at the sides enclosed (by a Mansard roof, for instance), the form of the ventilating shaft being changed so as not to interfere.

It is proposed that the heating of the rooms in cold weather shall be effected by stoves or coils of steam-pipe radiators placed under the windows, so that the incoming fresh air shall be warmed as it enters the room. As we have considered this part of the subject in previous articles, we would refer the reader to them.

The only objection that we can see to our school-house thus overflowed with sunshine and fresh air, is that the children would so luxuriate in these essentials of physical health and vivacity that they would be as restless and mischievous as the boys and girls of an old-fashioned country school kept in an over-ventilated log-house. They would need a very different treatment, it is true, from that required to spur into activity the poor, pale-faced, automatic dolls that go through the routine performances of many of our public schools : yet we must confess a strong liking for the *spirit* of the country school-boy.



EASY EXPERIMENTS IN ELEMENTARY CHEMISTRY.

SECTION X.—*Carbon, Boron, and Silicon.*

THE first member of this group is the only one of them that is of special interest to the experimenter. Boron is rarely seen even by the chemist, and the only one of its compounds that is widely known is borax. Experiments with it are more appropriately considered in connection with the metals. Silicon is as rare as boron. In combination with oxygen it forms silica, better known as that most abundant of simple minerals, quartz.

An interesting experiment affording pure silica in a gelatinous condition is the following :

Exp. 115. Prepare a small flask with a cork and long glass tube bent

twice at right angles, so as to lead to the bottom of a glass jar capable of holding 5 or 6 inches of water. In the tall glass pour mercury to the depth of an inch.

Put into the flask a mixture of equal parts of powdered fluor-spar and powdered glass, little more than a tablespoonful in all, and add sulphuric acid enough to cover the rest. Put in the cork and tube, and let the outer or long end of the tube dip below the surface of the mercury. Fill up the tall jar with water. Apply heat to the flask, which of course must be on a suitable stand. Fluoride of silicon, which is a gas, passes through the tube and through the mercury; but is decomposed by contact with the water, so that each bubble as it rises is enclosed in a little sack of pure silica in a gelatinous condition.

The element carbon is known under the forms of diamond, graphite or black-lead, and coal. Carbon and hydrogen unite to form the great bulk of all so-called inflammable substances. The most interesting compound of carbon to the experimenter is carbonic acid. It is prepared easily and without heat, from some carbonate, generally of lime or soda. Common marble is the cheapest.

Exp. 116. Supply a pint bottle with a cork, and a tube bent twice at right angles, similar to that employed in the chlorine experiment. Let the tube lead to a large jar, which should be supplied with a loose cover of pasteboard or thick paper. Put a few bits of marble in the generating bottle; add water enough to nearly or quite cover them, and then pour in sulphuric or hydrochloric acid until the effervescence is quite brisk; then cork the generating bottle, and the gas will accumulate in the receiving jar. A single ounce of the marble yields something over a gallon of the gas.

Exp. 117. The amount collected in the large jar may be tested at any time by lowering a lighted taper into it. The flame is extinguished as soon as immersed in the gas.

Exp. 118. Take a wide-mouthed jar of any capacity, from a quart to three or four gallons, and set a lighted taper in the bottom. Fill a jar of equal capacity with carbonic acid gas, and cover it with a piece of pasteboard or a wooden block. Take up the full jar and hold it in position to pour into the one containing the taper. Do not remove the cover too soon or too suddenly, otherwise the currents of air established by the taper, or by your motions in handling the jar, may force the current of gas in a wrong direction. The evidence that the gas is poured from one jar to the other is the extinguishing of the taper.

Exp. 119. Another way to show the superior weight of carbonic acid is to extemporize a balance by suspending two large pasteboard boxes at opposite ends of a stick. The boxes had better be equal in size. The stick should be suspended by its centre, and the whole nicely balanced.

Having prepared an amount of gas sufficient to fill one of the boxes, pour it carefully in. That the weight of the carbonic acid is greater than that of the air, is made manifest by the sinking of that arm of the balance to which the gas has been added.

Exp. 120. Prepare some lime-water as in Exp. 10. Dilute a little of that prepared under those directions by adding about half the bulk of water. Let the gas from the generator pass through the lime-water : a milkiness ensues at once, owing to the formation of carbonate of lime ; but if the bubbling of the gas is allowed to continue, the liquid will again become clear, because water holding the gas can dissolve the newly formed solid.

Exp. 121. Boil the clear solution obtained from the last experiment. The gas held in solution is expelled and the carbonate of lime reappears.

Exp. 122. Heat in an iron spoon a bit of potassium until it ignites, and lower it into a jar of carbonic acid. The metal takes to itself the oxygen, and the carbon of the gas is deposited as a black powder.

The remaining carbon and oxygen compound, carbonic oxide, affords neither very brilliant nor satisfactory experiments for the class-room. It is a poisonous gas. It burns feebly with a pale blue flame, and gives but little heat. The best exhibition of its peculiar flame is afforded whenever fresh anthracite coal is added to an already brisk coal-fire. The carbonic acid formed in the lower portion of the mass is deprived of one equivalent of its carbon by the upper portion ; and the gas issuing through the coal at the top is carbonic oxide, which ignites and exhibits its characteristic flame.

Experiments with the compounds of carbon and hydrogen afford, for the most part, only exhibitions of ordinary combustion. These, although interesting and instructive, are so well described in most elementary works on chemistry, that it is not considered necessary to introduce them here.

With this section ends the experiments in the non-metallic elements.



POLYGLOTT INSTRUCTION.

BEFORE the Columbian discovery, North America was resonant with numerous aboriginal idioms.

The stream of colonization opened by Spain, England, France, Holland, and the foundation of establishments by the Danes, Swedes, and Russians, superadded the Indo-European stock of languages to the crowd of dialects already spoken on the continent.

From all parts of Europe, and from the coasts of Asia facing our Pacific

States, pour every year upon these United States hundreds of thousands of human beings.

Statesmen predict the expansion of the American republic to the north, where nestle a million of French people, and to the south, containing millions of descendants of Spaniards intermixed with other branches of European nationalities.

Our relations of all kinds with foreign nations, across both the Atlantic and Pacific basins, are rapidly increasing. If we take into consideration our peculiar position between the continents, we shall see that our commercial transactions must, year by year, grow to vaster and vaster proportions.

It behoves us then, at the threshold of this era of national interchanges, to examine how we are to meet the novel want of linguistic knowledge, which is precipitated upon us at home and from abroad. How shall we confront these audacious invasions of our Anglo-Saxon propriety? Shall we oppose to these encroachments merely the force of inertia, trusting that the foreigners who flock to our shores and settle in our midst will, in the course of time, leisurely amalgamate with the rest of the population? Have we motive to hope that foreign nations will soon open their eyes to the unforeseen advantages of a thorough acquaintance with the English language?

Let us not depend upon such slow power of assimilation. Let us not entertain such a deceptive idea of our neighbors' necessities. Let us show our usual spirit of enterprise in this almost unexplored field of education, and resolve to remove the difficulties that may at first beset our way, as steadily as we have hitherto conquered the physical obstacles which retarded our forward march across the continent.

What do you want us to do?

The work before us is twofold. In the first place, the English-speaking portion of the community should be induced to study foreign languages and master them, so as to occupy the vantage ground; and the American-born would occupy it if he were enabled to address strangers in their respective native tongues. On the other hand, as a fit counterpart of what is accomplished in our behalf, a systematic course of instruction should be organized in the different States to impart, at the earliest opportunity and by the most scientific processes that are available, a thorough knowledge of English to those masses of foreign-tongued people who overcrowd our cities and are spread in large aggregations all over the land.

It may be objected that, if we go to the trouble of learning foreign languages, we shall thereby encourage the cultivation of strange idioms and of a stranger spirit of alien institutions among immigrants. Do they not, some may say, abdicate every distinctive feature of their former nationality

by renouncing their allegiance to their native land, and, in its stead, accepting American citizenship, with its consequences and its responsibilities? It is alleged, besides, that we are a busy nation, and should waste no time except upon the most elementary and indispensable branches of learning; let those foreign pretenders take care of their idiosyncracies! Says another fault-finder, we are already overtaxed, and no public moneys should be distracted for such an object; if our adopted citizens wish to acquire our language more rapidly, let them consecrate some of their own means to that effect.

To these objections one might thus reply:

We want a mastery of foreign languages for social purposes, for literary attainments, for business operations. The generalized usage of those tongues cannot endanger for a moment the supremacy of the English idiom. Its own solid mass will preserve it intact from the possibility of disintegration. It will no doubt receive accretions from all sides; for the composite character of the language dictates the policy it follows, to incorporate, and not to reject, through a false bashfulness, all the words susceptible of adding a new expression or form of thought to its vocabulary.

Through the hundred voices of publicity we invite men of distant climes to the enjoyment of our liberties and to a share of our labors. But when, on their arrival, they speak of retaining and perpetuating that most precious boon, the speech that cradled their infancy, then our national pride protests. Our agriculturists may stimulate variety in the matter of potatoes, but talk of diversity of languages, and our national uniformists must crush it in the bud.

No congregation of individuals have more room and more wealth at their command than this nation. The centuries lie before them, full of rich promises. They can afford leisure. Let our people employ a part of their means and of their time for a higher culture, for a more generous enlightenment of the faculties. In this era and home of extemporized fortunes, what boy knows what the veiled-face future keeps in reserve for him?

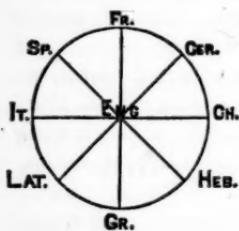
Changes, to be promotive of their intended results, must be gradual.

If it is considered desirable to establish uniformity of language in the country, an intermediate route, leading to that object, must be adopted. The sooner the newly created citizens of the republic are taught the national language through the medium of their own tongue, the quicker will they be enabled, thanks to this lingual naturalization, to participate in the duties of American life.

The realization of these views should be a reciprocal work of international companionship. To render more harmonious the relations of all our citizens, so intimately blended by interest and *juxta-habitation*, we

must educate ourselves to the language of the new-comers, and educate them to a popular understanding of the national vernacular.

It is admitted that our population is of a mixed linguistic complexion—that in our expected extension north and south we shall be obliged to incorporate many more millions of foreign-tongued people—that, in our commercial *rapports* with Europe and Asia, we encounter the mother-tongues of a considerable number of our citizens, deeply rooted in the soil. In order to see what we have done to adapt ourselves to the ever-changing national status, we will at this stage investigate to what extent polyglott instruction has been prosecuted, and examine what methods of study would conduce to the most satisfactory results.



The accompanying cut, representing a wheel with its hub or central point, partitioned by eight spokes or lines of separation, will make what I have further to say more transparent to the mind's eye. A vertical line divides the circle into two halves, right and left. A horizontal line separates it again into two parts, the upper and lower. The two diagonal lines furnish four additional points, right and left,

upper and lower. These eight points joined to the central one are to serve for my demonstration, as paper posts for locating the languages necessary to form a complete course of ancient and modern languages, to be studied more or less in our schools.

As we view this matter from an American stand-point, the central position by courtesy as well as by right is accorded to the English. The right-hand side is occupied by languages which appear to have little or nothing in common in their origin or construction; and the left-hand, by idioms closely correlated with one another. Of the two hemispheres, the lower is reserved for the ancient, and the upper for the modern languages.

Commencing with the ancient and basic languages, I place on the ground-floor the Hebrew, Greek, and Latin; I therefrom ascend, in the direction of the hand of a watch, to the Italian, Spanish, French, and German. The eighth spoke or blank space I would assign to the Chinese or some other language, at the option of the student.

These eight tongues, radiating to and from the English, constitute a full-orbed cycle of the languages that are either spoken or extensively studied in North America, at the present day.

To pass for a scholar and assume to be a perfect American linguist, one should know them all. However, on account of our present material and intellectual development, and to accommodate this integral plan of lingual study to the exigencies of the grade and age of the pupil,

our educators may cut off here and there a portion of the language-bearing wheel.

For instance, by setting aside the lower part of the circle, you omit the ancient languages altogether. If you practise a further emendation at the sides, you exclude the Italian and Chinese. After this reduction, there would remain but four languages, the English, Spanish, French, and German, which, according to my notions, should enter the curriculum of every well-conceived system of American education. The French, Spanish, and German, as a trident, with the English as a handle, would give American boys a practical superiority over those of the other maritime nations.

At what point of the wheel will it be best to begin? At the centre or at the circumference? And at what point of the latter?

There are several stations from which you may take your departure: the historic, the philosophical, the logical or fundamental, and the practical. The parties interested must decide between these different orders of procedure, according to local requirements or personal predilections. One might select French in Louisiana, German in Wisconsin, Chinese in California, Spanish in Texas; any of them, indifferently, in such cosmopolitan cities as New York and San Francisco.

Where can the acquisition of languages be pursued? and at what period of life?

Youth seems to be the most appropriate period for learning languages, inasmuch as the vocal organs of children are more supple, more easily brought under mechanical control; and for the stronger reason, perhaps, that their minds have not yet borne the deep impress of business anxieties, so contrary to the mental calmness required for such pursuits. Therefore, the study of languages might be essayed in the first degrees of the school, the proportion to be augmented as the scholar is promoted to higher classes; or, if you please, polyglott departments might be established entirely separate from the ordinary grammar-school organization.

With Americans, time is the golden factor of existence. They sum it up in three words: Time is money. In spite of this lucrative axiom, new studies have been constantly introduced into the prescribed course, and none taken out. Why? Simply because American civilization has become so complex that it needs all this multiple knowledge to sustain its advance. Hence, the directors of public education, far from being able to suppress any subject, have, on the contrary, been compelled to seek room for fresh studies. You may depend upon it, henceforward, the American people will never be contented with a mere knowledge of reading, writing, and ciphering.

In my estimation, we should not reduce the number of our studies

in the schools, but diminish their bulk, teach the essentials, and leave details and minutiae to be acquired later.

The science of teaching must not halt to witness without following the progress of the rival sciences. A current of electricity should run through its methods. The laws of grammatical analogy, or correspondence between different idioms, should be resorted to in order to condense to a few general rules the mass of particular rules now taught and repeated in every national grammar, just as if each language were the only language on earth.

In application of these laws of analogy, if I had the five European languages to teach, I should compile a list of the sounds heard in each language, sift them carefully, and prepare a table showing where, in their phonology, these several idioms coincide, and where they diverge.

Not taking into account superfine distinctions, the English comprehends thirty-six sounds. The Italian has no sound not found in English. The French yields to our exploration six additional sounds, and the Spanish and German one, the same for both. In all, we find forty-three sounds. Now, drill a class on this phonic chart, and, tell me, do you not, by this simultaneous exercise on all the sounds of the five languages, save the time that would be spent on each, and avoid the confusion natural to the disconnected presentation of five alphabets?

After having graduated from the sounds, the pupil is led to their written representation. There, we present anew a comparative view of their calligraphic and printed peculiarities.

Attacking the study and memorizing of words when we have mastered the sounds which compose them and the letters by which they are rendered visible, it is in our power to invest that study with the most pleasurable interest by a constant *rapprochement* of their resemblances, and by an incessant repetition of their contrasted dissimilarities.

After the sounds, letters, and signification of the isolated word have been exhibited, the instructor is brought to treat of the articles of the grammatical code by which the changes and syntactical combinations of the words are regulated. One single definition of the parts of speech, instead of a fivefold one, would suffice. The declension of nouns or its absence, the simplicity of the conjugation of the verbs or its intricacies, are themes which could not fail to afford a wide field for comparison and an incentive to thought.

Provided with the proper knowledge of the sounds, letters, etymology, and rules pertaining to the several languages, the student is ready to essay the practical work of conversation, the highest point of the edifice, the successive layers of which have been previously laid down. The scholars go round from one class-room to another, and familiarize their ears and

tongues with the tone, accent, and that seeming continuity that exists in the foreign idiom.

Through the method indicated here, or some other equally comprehensive, the labor of learning this fivefold brace of languages could be broadened into general grammar and shortened at the same time.

This must not be thought a fanciful sketch of an impossible design. The languages exist, and are taught separately here and there. Hebrew is studied in theological schools and by Israelites; Greek and Latin in colleges and universities; Italian but little, and mainly by private students; Spanish more than formerly; French and German in the higher grades of public and private schools; Chinese somewhat, and English everywhere. In San Francisco, they have separate schools denominated Cosmopolitan, in which four modern languages are taught with a success attested by conscientious examinations.

Among the felicitous reforms to accrue from polylingual education, is the general introduction of phonetics, so inexplicably neglected by teachers of all grades—the exclusive employment of the Roman typographical alphabet for all the languages taught, the broader and safer basis it would afford for the rational changes in the pronunciation and orthography of words, and the more facile means of learning English through and through, afforded by such frequent recurrence to its sources.

Whether as a merchant, a traveller, a navigator, an artist, a teacher, or a politician, the American has everything to gain, nothing to lose by a knowledge of languages.

The great diversity of languages prevailing in the world, though the organs that produce them are of a similar construction, shows a purpose somewhere not to obliterate these distinctions as long as they do not impair the unity of the race. None of the leading nations of Europe would think of abandoning their own idioms out of convenience or from a sense of inferiority, for another which might present some special advantages. And why should they? How weary would existence become if there was but one people, but one language, but one dressing pattern, but one literature! English can never acquire the precision of the French, or the sweetness of the Italian. Why should we be deprived of these invaluable qualities because it will cost some little fatigue to possess them.

Issued from an insular people, we have inherited a strong one-sided view of things. In learning foreign languages, we will likely shake it off and become more tolerant of national differences of all sorts. Our education must breathe fresh inspirations as from the height of our Western peaks. It should be as broad in its foundation and as varied in its culture as the continent itself.

ETYMOLOGICAL REVERIES.

BY PROF. F. L. O. RÖHRIG.

II.—*The English Word “WHITE.”*

WHITE is that color which reflects the most light. *White* coincides with the very idea of light and brightness; and bright, brilliant, etc. are, even in common language, epithets applied to denote a certain degree of intellect: a bright intellect, a luminous thought, a brilliant talent, an enlightened mind, to throw light on a subject, to draw light from science or instruction, to elucidate a subject, and so forth. In the various languages this coincidence goes still further.

In the English word *white*, the *h* is not an essential letter; it is the same *h* which appears in the words *who*, *which*, *what*, *where*, *when*, and *which*, in the Scandinavian languages, stands before the *w* or *v*, and has a similar import with regard to the letter *w*, as *h* in Greek has in relation to the letter *r*.

Thus the form to be considered is rather *wite* than *white*. Now, every one knows that the *e* at the end, is here nothing but a termination which easily disappears, as, for instance, in *whiish*. Accordingly, the genuine form of the word under consideration would be *wit*, which already leads us to and even coincides with the substantive *wit*, the verb *to wit*, the adjective *wit-ty*, the word *wit-ness*, which refer to the ideas of *knowing*, *understanding*, and so on.

An acknowledged fact, exhibited in kindred tongues, and often even in one and the same language, is the frequent interchange of the letters *t* and *s*, as we see in the English *better*, German *besser*; English *wafer*, German *wasser*, etc. Thus, *wit* (= *white*) reappears in the German *weisz* (*white*), and, at the same time, the German *weise*, and the English *wise* and *wis-dom*; then again in the German *wis(s)en* (*to know*), *weisz* (*I know*). Here again the ideas of the color *white*, and of *understanding*, *knowledge*, *wisdom*, coincide. The intermediate idea, by which the color *white* and knowledge or wisdom are connected, is doubtless that of *perception of light*, or *the faculty of seeing*. And this we really see also in the Latin *vid-eo* (*to see*), (where the radical syllable *vid* = *wit* = *wis*); and with the dropped initial labial, *v*, *w*, in the Greek forms *id-on*, *id-o*, and *eid-o* (*to see*), *eid-os* (*image*)—where the interchange of the sounds *i* and *ei* is the same, which we remark in the comparison of the English *wise* and the German *weise*. Also *id-ol*, *id-ea*, *id-eal*, and others are to be referred to the same head. They all point to *seeing*, to *light*, and *enlightenment*. The same we see in a word of a very different root in the

Greek work *leuk-os* (white). *Leuk* (the radical syllable of *leuk-os*, as *os* is nothing but a termination) is in the great system of the kindred groups of the Indo-European family of languages, intimately related to the following expressions: Lithuan., *lauk-anan* (eye), Hindust., *lauk* (to see), English *look*. Also in the French *luc-arne* (primitively, slit or kind of loop-hole where the light penetrates as through an *eye*), the German *Lück-e* (an interstice, interruption), *loch* (a hole), the English *lack*.¹ Then again, the root *leuk* reappears in the German verb *leuch-ten*, the English *light-en*; the substantives *leuch-te*, *lich-t*, English *light-t*, the Latin *luc-eo*, also *lux = luctus*. We might see the same root in the Greek word *log-os* (word, reason, understanding, etc.), unless the Greek *leg-o* (I say) be akin to it, and, as reducible to the fundamental ideas of *putting down*, *establishing*, etc. = to *lay*, German *legen* (related to the Latin *loc-us*, etc., and giving rise to derivatives like *lage* = *law*, *leg-al*, *lex* = *lec-s*, etc.), should come in to interfere with our "REVERIE."

One of the words expressing *white* in Latin, is *candidus*,² the final syllable *idus* being a mere termination,—*cand* alone is important for our purpose. It evidently refers to *light*, just as we saw was the case with the Greek *leuk-os*, etc. *Cand* reappears in *candor*, in the Latin *in-cend-o* (= the German *zünd-en*),³ the English to *kind-le*, the substantive *cand-le*. In *cand-id* (*candidus*) it refers to *veracity* and *truth*. This may be sufficient to show that whole series of ideas in their connection one with another.

III.—The German word "FRAU."

In German, the generic term for female is *Frau*. The same word in Gothic is *frau-ja*, intimately related to the Sanscrit *pri-ya*, wife (with an interchange of the labials *f* and *p*), to the German *Brau-t*, spouse, and likewise connected with the English *bri-de*, the French *bru*, the German *Bru-t*, *brüten*, etc., all referring to *Ardent Desire*, *Fervent Love*, and being of the same radical as that of the German *Bru-nst*, *Bra-nd*, *bre(n)-nen*,⁴ the French *brû-ler*, *em-bra-ser*, *bra-sier*,

¹ This catenation seems to extend still farther; as, for instance, to the English verbs to *leak*, to *lack*, etc., also to words like *lake*, Latin *lacus*, etc.

² The reader will know from the study of Roman antiquities, why also the word *candidate* comes from *candidus*. Moreover, as we would remark here in passing, the origin of our word *ambition* finds likewise its explanation by the customary *ambitus* of the candidates

³ Even the German word *Zunder* (= Eng. *tinder*) and the Latin *cinc-is*, French *cendres*, etc., etc., are connected with it.

⁴ The English to *burn* is likewise to be referred to the radical *Br*, in the sense of *heat*, fire. *Burn* is the same as the German *brennen*, the French *brûler*; and it is to be remarked that the letter *r* has the peculiarity, inherent in its nature, of being often transposed; as, for instance, German *durch*, English *through*, etc. The radical *br*, or *fr*, by a manifest *antiphrasical* tendency, similar, for instance, to that apparent in the two antagonistical meanings of the English word *fast*, etc., expresses also the absence or negation

the German *bra-ten*, *bril-ten*, *brü-hen*, *brau-en*, *brau-n*, French *bru-n*, English *brow-n*, the French *fri-re*, and so on. *Bru*, *brut*, with the meaning of *beloved*, seems to be implied even in the proper names *Brutus*, *Bru-no*. And as every one of our readers acquainted with the theory of the permutation of consonants will easily recognize the primitive and fundamental identity of the roots *fr=pr=br*, he will likewise observe that the ideas of *love*, *good*, *desire*, or *volition*, are constantly implied in those very radicals which thus shadow forth, as it were, the conception expressed by the generic term for the female sex in its various relations, and more especially when viewed in its essential loving quality, as *wife*, *spouse*, etc. The ideas alluded to reappear in the Sanscrit *pri-ya*, *wife* (radicals *pr*), *pri-tis*, *love*, *pri-ta*, *beloved*; in the French, *pri-ser*, to *desire*, *pri-er* to make known one's *desire*; in the Latin, *pre-cor*, in the English, *pray*, *prai-se*, in the Latin, *pre-tium*, French *pri-x*, English, *pri-ce*; since things of a high *price* or things dear refer again to desire and love, so that even the word *dear* is used for *beloved*, a *dear* friend meaning a *beloved* friend; and since, also, the Latin *carus* (dear) reappears in *caritas* (charity), and the French *cher*, of a high *price*, *dear*, likewise means *beloved*. The same radicals *PR* or their equivalents *FR*, reappear with the same meaning in the Sclavonian *pri-atel*, friend; in the English, *frie-nd*, the German *Freu-nd*. And there cannot be the least doubt that, in the words *friend* and *Freund* the radicals *fr* express the idea of *loving*, when we consider that the Latin word *am-icus* (friend) comes from *am-are* (to love), and the Greek *fil-os* (friend), from *fil-eo* (to love), and the Arabic *hab-bib* (friend) from *hab-b* (to love), etc. The *fr*, with a vowel sound, reappears also in the German words *frei-en*, to marry, to look out for a *wife*, and *Frei-er*, a *lover* with a view to marriage. The Venus of the Scandinavians was *Frei-a*, the goddess of love; and *freu-en* in German, which means to rejoice, *Freu-de* (joy), *fro-h* (joyful), *frö(h)-lich* (gay), belong evidently to the same family of roots; also in Turkish the word to *rejoice* is in an analogous manner expressed by *sev-in-mek*, which is a derivative form of *sev-mek*, to love, so that *sevinmek* has a double meaning; 1st, to *love* one's self; 2d, to rejoice. Now, we have in English the word *free*, in German *frei*, where the radicals "*fr*" refer again to the idea of *love*. For, *freedom* is the state or condition in which one can do what he *loves*. And has not *freedom*, indeed, for its synonymous term, *lib-erty*, Latin *libertas*, where the root *lib* again confirms our assertion? For, *lib* refers to *love*, as seen

of heat or fire, as in *freeze*, *frozen*, *fresh*; the German *frost*, *frieren*, *frisch*: the French *frileux*, *froid*, *frais*: the Latin *frigidus*; just as a derivative from the Latin *calidus*, Romance *caldo* (hot) is likewise used to denote the *absence* (or *negation*) of heat, in the Germanic tongues, under the forms *cold* (English), *kalt* (German), etc., primitively derived from a correlative polarly opposite term, as the Latin *gel-id-us*.

in the Latin *lib-et*, *lib-enter*,¹ in the German *lieb-en*, the English *lov-e*, the Sclavonian *lub-it'*. The radicals *pr* with a vowel-sound expressing *love* and thence *desire* (as has already been demonstrated) are met with in the same sense in *Pri-apus*, also in *Pri-amus*. *P(eh)ri*, in Persian an angel, as well as the Greek *p(e)ri-steros*, *p(e)ri-stera* (dove), are evidently to be referred to the same idea. *P(e)ri* stands for *pri*, a fact patent to all acquainted with linguistic science; and *p(e)ri-stos* is to be viewed as a mere variation of *pri-stos*, to which the comparative and augmentative endings, *-eros*, *-era*, are added. *P(e)ri-steros*, *-era* (viz., *ornis*), designates *dove*, or the animal which, as it were, loves more or the most; that is, pre-eminently the *loving* animal.² This assertion becomes still more confirmed by the same word in Latin, viz., *columba*. *Columba* is the equivalent of *coluba*. For *mb* and *mp* may, in many instances, be reduced to a purer and more genuine primitive form, viz., a mere *b* or *p*, as in *cumbo*, *cubui*; *lambano*, *elabon*; *rumpo*, *ruptus*, etc.; [the modern Greeks also write this very *mp* in order to express the *b* of other languages]. That *co* in *columba* is the same as *con*, *cum*, no one will call into question, who considers such words as *co-existing*, *co-eval*, *co-incide*, etc. This "*co*" means *together*, *mutually*, *each other*. Thus, *columba* is *co-LUB-a*. It remains to consider *lub* in this word. It is the same as *lub* in *lubenter* for *libenter*, *lubet* for *libet*; it is the same as *lub* in the Sclavonian *lubit'* (to love), and thus equivalent to *lieben*, to love. So we see that *peristera* (for *pri-ster*) finds its elucidation in the analogous Latin word for *dove*, viz., *columba* (instead of *co-lub-a*). This *lub* reappears under the form *lup* (as *p* and *b* are interchangeable) in the word *vo-lup-tas*, where again the ideas of *love* and *joy* coincide. *Voluptas* evidently stands for *vol-lup-tas*: *tas* being a mere termination, we need to consider only the parts *vol* and *lup*. *Vol* refers to *good* and to *will*, *desire*; so we see it in *vol-o*, in the German *wol*, *wol(h)l*, the English *well*, the Latin *velle*, etc. And in German, *voluptas* is indeed expressed by *Wohl-lust* (written *Wol-lust*); *lust* is *desire*, *love*, like *lup*. Accordingly, *voluptas* (*vol-lup-tas*) implies *desire* of *love*, or a good, joyful, happy *love*. And here we may mention that, where uncontrolled, *voluptuousness* is called *libertinism*, and he who indulges in it, *libertine*, where "*lib*" reappears, as above.

¹ *Lib-enter* is in English translated by *will-ingly*, in French by *vol-ontiers*, where, again, *love*, and *will* or *desire* become convertible terms.

² Here, by the way, we may notice the Latin words *pri-stinus*, *pri-scus*, referring to the *good*, *old* times, or at least primarily implying a happier or better state in a *former* period. In this sense, *old* is often used, as every one knows; and the Latin *antiquus*, in such expressions as "*nihil antiquius habeo*," etc., evidently alludes to *preferring*, *liking*, *loving*. Even in the very words—Latin, *pri-or*, *pri-mus*, Greek, *pro-tos*, *pri-n* (the preposition *pro* = the Latin *ante* of *antiquus*), the same fundamental idea seems to lie at the bottom.

MODERN LACK OF EMOTIONAL CULTURE.

WE all agree that there is a hiatus in education which mere intellectual culture cannot fill up. We admit that the age's efficient spur and motive is neither love, nor glory, nor any single virtue, but the putative parent of these, gain. We behold our very manufactories avoided as specious deceptions "made for sale," and the name of our central factory become the system for what is base and "Brummagem :" we see embezzlements, defalcations, bubbles, organized unions for the doing of murder, co-existing with mental attainments more than sufficient for some virtuous ages ; we see this growth of evils growing greater in the deterrent (?) presence of a hitherto unequalled growth of intellect, and an accompanying clash and strife of class interests resulting from that enlarged education which, according to our theory, was destined to reconcile these diversities of interest, widen the bonds of amity, and obliterate the prejudices of classes. We find, in short, in the presence of the full swing and sway of intellect, the benevolent emotions of humanity, weak and worse than impotent, an irritating shame and a reproach.

If, then, our system of education, our processes of brain-tillage will not help the emotions to fructify, why not direct our husbandry at once to the emotions themselves ? If we were as free to examine and to choose here as we are in the raising of our crops, should we not discern the necessity for two fields of cultivation ? That the human energies have two fields of exercise—a mental and an emotional—is surely no novel announcement. We are cultivating one of these exclusively. And though our next, and let us hope, our last resource in this direction, will be an attempt to manure this field with moral philosophy, no emotion, good or bad, will ever germinate therein, for all our toil and ingenuity. Socrates and Plato and Zeno and Seneca and Paley will not help us much. The first four brought but scanty harvest to the ancients themselves, who were more emotional than we, and who, in their susceptibility to the influences of physical beauty, degenerated into a final nature-worship and torpid pantheism, just as we, from an exclusive trust in mind and neglect of emotion, are petrifying into rationalism : while Paley is science in modern dress, and only better than Seneca, where supported by Christianity, which, unhappily, he makes a feint of supporting.

But what is Christianity about ? it may be asked. I answer that her field of operation is the heart and the emotions, that Christianity can make a man holy, more holy than any agent ever made man ; but she cannot make holy a half-man, a brain, the mere intellectual moiety of humanity, however that moiety be magnified by science. But there is your field of emotions (it is replied) quite open to Christian cultivation : does this field demand other and better culture ? Would that our Chris-

tian brother would stand firmly on this ground, nor shift it ! remembering, only, how Christianity never proposed to supersede culture either of intellect or of heart ; how it comes in aid principally of the latter, not commencing it (culture of the heart), but prerequiring that the soil be not stony nor hopelessly weedy, and foretelling the vain issue in either case. St. Paul could open Christianity to the Athenian, whose emotions, cultivated and not dead to nature's beauty, had darkling discerned an unknown God somewhere under and supporting this "nature's beauty." That Greek soil was ripe for his sowing, and the Fathers of the Church were the harvest. Come, let us prepare the soil, my brother ; see that our sons entering their college and college chapel have their emotions accessible to "whatsoever things are lovely" as well as learned ; that the bounty of nature has not been wasted, but the lily of the field duly esteemed, and the beginning of love within their heart. Without this preparation, be assured the Christianity which they learn will be, at most, a brain-ful. That poor moiety of humanity we have dwarfed them to, the Sciential, will only take in and digest that poor moiety of Christianity, the Doctrinal : it will be of the reason rational, a formula to be stated in Algebra.

What hinders that we get to work at once ? Nature, yet patient, is waiting with her help, with sunsets through forests grand with pine, with keen ether-cutting crescents and star-clusters—with the beauty of fields ripe with bread. Holds she not fair forms of ferns, weeds, and flowers, mosses, minute lichen, and outlines unsearchable of travelling cloud and mountain ?

To learn the language of these forms, and, most of all, to feel the deep mystery of their beauty, in common with our fellows, high and low, to whom nature gives these as a birthright of humanity—to hold, at least, this one common ground of human pleasure in companionship with all men, rich and poor, and realize this common tie of brotherhood that embraces us, will do more to associate the human family than all the fulsome flattery of the age, which insults the working-man with transparent mendacities and adulation he intuitively smiles at and despises ; which widens, instead of closing, the social gap. Burns, in his poetry, found out that he and his class had in possession

"Joys that riches ne'er can buy,
And joys the very best."

And found also that "Edinburgh gentry," for all their public recognition, frank, affable, familiar as our own public talk to our working-classes, would still keep their vaunted lion at arm's length, and had no more, but much less, sympathy with him and his pursuits than had the poor poet Yowe he left at home in Ayrshire.¹

¹ "The Void in Modern Education, its Cause and Antidote." Macmillan & Co.

NOVEMBER, 1869.

PAST, PRESENT, AND FUTURE.

WHEN the AMERICAN EDUCATIONAL MONTHLY was established, six years ago, its scope and character were fixed in accordance with the popular theory which rates the common-schools as the great educators of the people, and regards the multiplication and improvement of these nurseries of learning as the surest and speediest way of elevating the nation's general culture. In pursuance of this theory, and despite its unrestricted title, the MONTHLY was made essentially a Common-School Magazine. Designed to circulate almost exclusively among those engaged in the common-school work, the professional wants and literary tastes of that class of educators largely determined the policy it chose to pursue. By the advocacy of measures calculated to elevate the personal and professional standing of common-school teachers, increase the number and efficiency of the schools, and improve the character of school-books and appliances, together with a vigorous opposition to everything tending to corruption and quackery in the conduct of the schools, the MONTHLY has labored earnestly and not unsuccessfully in its chosen field of effort. The honorable reputation it has enjoyed for character and commanding influence proves that the policy it has pursued has been by no means an ill-advised one. Yet we are persuaded that a much less restricted policy would have made it much more influential for good. Our mistake has been the common one of trying to advance the work of popular education by efforts originating in and expended upon the elementary schools, independent of the sympathy and co-operation of the higher departments of education. With all due deference to the nobly earnest men and women at work in the common-schools, we may be permitted to believe that the laborers in this field are not, as a class, best fitted to grapple with the educational questions before the public for solution.

These questions rest, in the main, in a higher plane of thought and experience than is occupied by the great body of elementary teachers. The demand is for a higher, broader, and more practical culture than the nation has hitherto enjoyed ; and it is little else than absurd to expect the wisest determination and direction of this culture at the hands of those whose individual culture rarely exceeds that of the moderately educated. The inspiration and better counsel must come from, above, from the laborers in the higher fields of education and the wider fields of practical life. The great need of the day is some means of bringing these higher forces to bear upon the solution of the questions of educational policy now agitating the country : that is to say, an educational magazine that shall not be devoted solely or mainly to primary education.

The habitual silence of those who would seem to be most competent to give a high character to our educational literature has been remarked by many. The cause of it we believe to be the lack of a suitable medium through which they may present their views to the public,—an educational periodical at once wide in scope, high in tone, liberal and critical in spirit, and read by the class whose attention is worth securing. The few first-rate educational articles published among us, reach the public in such a scattering way, and, generally speaking, command the attention of such limited audiences, that their cumulative effect is comparatively, if not absolutely, small. Could the best of such contributions be brought together in a worthy magazine, and supplemented by such others of like merit as would be called out by them, their combined influence would be incalculably great and beneficial.

Believing that such a magazine is not only needed, but, if established, would enjoy the sympathy and support of the genuine friends of education the country over, and further, that a suitable foundation for it exists in the **AMERICAN EDUCATIONAL MONTHLY**, we have during the past year gradually widened the **MONTHLY's** scope, elevated its literary character, and introduced such other changes as seemed requisite to enable it to become what its name imports, the organ and representative of the best educational thought of the country. These improvements we propose to continue as fast and as far as our friends shall give us encouragement. The table of contents of our present number indicates the ground we have entered upon, and propose to cultivate. It covers the entire field of education. If sufficient encouragement is offered by the friends of higher

education, the size of the *MONTHLY* will be largely increased to afford room for a greater variety of matter, and especially to allow the republication of the best foreign contribution to the literature of education.

The same liberal yet fearlessly aggressive spirit that has marked the *MONTHLY* heretofore will continue to characterize it. It is our purpose to have discussed in these pages, by the most competent persons whose pens we can engage, every question of general interest that shall arise in the various departments of education. The freest expression of opinion consistent with justice and propriety will be not merely suffered but encouraged in contributors, our desire being not to propagate any views or theories of our own, but to call out and lay before the world the views and opinions of any and every one who shall have ought of value to contribute to the general stock of educational thought and experience. Fearless and impartial criticism of school-books by competent writers, regardless of the friendship or enmity of authors and publishers, will continue to be a special feature of the *MONTHLY*; while an incessant war against charlatany, corruption, and quackery in everything pertaining to education will characterize its general management.

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THE "INTRODUCTION" OF SCHOOL-BOOKS.

SINCE the publishers of the *MONTHLY* announced as in preparation a series of articles entitled "How School-books are Introduced," we have been favored with many material and very acceptable additions to our stock of facts relating to the matter. Already we have positive knowledge of a multitude of instances of corruption involving the integrity of school officers of every grade from the highest to the lowest. We know of manipulations submitted to if not invited by school superintendents and other scholastic servants of the public, with pecuniary profit to themselves and worse than pecuniary loss to the community, which, if made public, would stagger the popular faith in the purity and self-sacrificing philanthropy that such officers so generally arrogate to themselves. Indeed, if the legitimate good done by these (in their own estimation and in the estimation of the unenlightened public) chief movers of the educational wheel must be accompanied by so much illegitimate evil, the country might well dispense with their services altogether.

But such an heroic cure is not required. It is not necessary to burn the house, as the mythical Chinaman did, to get rid of the fleas. Simply by making corruption *unsafe*, it may be possible to put a stop to very much of the maladministration of school affairs which now prevails because it may be indulged in with impunity. From an innocent beginning in presentation-books to teachers and school officers, special discounts on first orders in case of introduction, and so forth, there has grown a system of bribery, direct and indirect, that is at once a scandal to "the trade," a burden to the book-using public, and a grievous annoyance to honest teachers and school officers. It is a system which makes teachers and parents the abject slaves of publishers, when the direct contrary ought to be and naturally would be the case. It creates stupendous monopolies, based on collusion with "rings" more or less extensive and powerful. It establishes "uniformity" at the expense of freedom of private judgment on the part of teachers and parents. It supplants books of merit by those that are worthless; and enables "push," audacity, and unscrupulousness to control everywhere, converting the public schools into public mills for the grinding of private grists. There is no enterprise more meritorious or useful than that legitimately employed in the production and sale of school-books. The enterprise that we oppose is of a vastly different sort. It is wholly illegitimate. It thrives by chicanery, corruption, and fraud. It works injustice to the trade, perverts instruction, corrupts school officers, and swindles the public.

Our expectations may be voted Quixotic by those who have no knowledge of the evil in question, and extravagant by those who know its magnitude; yet we hope sooner or later to make such an *exposé* of the prevailing system of "introducing" books,—as it is euphemistically called,—as shall at least greatly modify the business. All that is required, we believe, is simply to open the eyes of the public to what is going on around them; and that we shall attempt to do.

Of course the greater the number and variety of facts at our command, the more searching and effective the *exposé* will be. To those who have already furnished us with facts well authenticated, and to such others as may hereafter favor us in like manner, we would simply say that the information so supplied will be used in such a way as shall not betray its origin, or make anybody but ourselves responsible for its publication.

SCHOLASTIC ALMSHOUSES.

THE intellectual Oliver Twists of New York will be a numerous body, should the desire of the *N. Y. Sun* ever be gratified. Here it is :

"Our position is, that the Public Schools are, like prisons, and the police, and courts, and the rest of the machinery of government, only defensible on the ground of necessity. We do not undertake to feed and clothe at the public expense children whose parents will do that for them, but only those who have no parents, or have been abandoned to misery and crime. Just so, in our opinion, should we provide public schools for children who cannot obtain schooling elsewhere, and for no others."

Since the Great Exposition at Paris, the British House of Peers has also arrived at the conclusion that public schools are defensible on the ground of necessity ; it is not, therefore, a very advanced position for an American journal to take in the year 1869. Here it has been usual to sanction State education by appealing to the laws of Economy and Justice. Public schools are cheaper than the prisons, and the police, and the courts, with which they are linked in the above extract. It would be difficult to point out any considerable part of the community whose interests are not advanced by them. Even the wilfully childless, and there are said to be many such, should hesitate to condemn a system calculated to provide them with able and efficient protectors in their old age, and should contribute with delight their quota toward the intellectual instruction of their future guardians. As to any other class, enough in numbers to be noticed, which would annul the right of children to education by degrading it into a gift, we know not where or that it exists.

Despotisms can afford to be unjust in this particular : we cannot. We appeal to our miners, and agriculturists, and mechanics ; every few months we call them out of their mines, or fields, or workshops, to help elect our rulers. In all countries men are expected to govern themselves individually : here they use the right to govern themselves collectively also. This is the speciality of our Republic, and to abandon this position would effect the speedy destruction of our form of government. On the contrary, in order to maintain our institutions, it is requisite that our people should be educated, so that they may perform discreetly the duties devolving upon them. If there be any Charity in the matter of Public Schools, it is easy to prove that the wealthy are the recipients of it, rather than the needy. For, it is manifest, that the first dereliction of

duty on the part of our rulers, the people, would affect property ; and it is certain that if the State did not provide education, self-interest would compel property-holders either to attempt to change our form of government, or to devise some other method of public instruction.

Let us hope that this and like efforts to degrade our public schools into almshouses will be futile. There is little reason to fear their success. On the one side are ranged the laws of the State, all the churches save one, and the fathers and mothers of a quarter of a million of children. On the other, the *New York Sun*, and the small party it is supposed to represent. It is a second edition of the Atlantic Ocean against Mrs. Partington. That a public press can afford to taunt indirectly any portion of its patrons with being public paupers, is its own business, with which we have no concern ; but we have a stiff objection against permitting the principals and teachers in our public schools to be degraded from their high positions, to that of Intellectual Turnkeys and Overseers of the Poor.

A NEW BRANCH OF EDUCATION.

A SHORT time ago Peter Cooper gave to the Institution which bears his name, and which has already proved a genuine benefaction to the working-people of New York, a new gift of twenty thousand dollars, to be expended in procuring a collection of the elements of machinery, and in organizing a Department of "Mechanical Philosophy and Mechanism" for the instruction of young mechanics in the construction and working of machinery. All methods of transmitting or modifying motion are to be represented in this collection by *workable* models. Cranks, escapements, cams, gears, pulleys, etc., with their simple combinations, are to be brought together as fast as they can be made, classified, and arranged with reference to easy examination, as are the books of our large libraries. The instruction will be given by lectures, as in chemistry and physics. The use to be made of the "elements" will be apparent to every mechanician. The simpler forms of motors, water-wheels, water-column machines, steam and hot-air engines, etc., will form a part of the collection, and afford subjects for instruction of the most practical and useful sort.

We shall watch this venture in a new field of education with the liveliest interest. It deserves to be imitated in every large city and manufacturing town in the country.

CORRESPONDENCE.**EDUCATION IN THE SANDWICH ISLANDS.**

THE common people of ancient Hawaii lived by sufferance, not by any "inalienable right." They enjoyed their food, drink, huts, the air that they breathed, and their lives, simply because the caprice or desire of their king or chiefs did not prompt the forbidding of them. The chiefs had at their disposal the property and lives of all beneath them in rank, while they in turn had to yield any or all of these to the demand of their king ; and woe to him of tardy foot, when his superior bade him move.

A demand for men or means from the king was succeeded by greatly increased demands upon each lower grade, until it reached the lowest huts. These demands were promptly and tremblingly complied with, even though it took the husband, the only son, the last article of industry or morsel of food. The king was god on earth : everything belonged to him, and must be forthcoming at his command. If he desired the pig, horse, or wife of another, he had only to signify the wish. If his priest needed human sacrifices to appease an angry deity, or to insure success to an expedition, the king's command placed them bound upon the altar. Probably no people in the world ever yielded such abject obedience to the "divine right of kings," as did the Hawaiians of fifty years ago. When, therefore, these chiefs endeavored to learn the secret of the wonderful power of the foreigner, and were informed by the missionary that they might become great and powerful too, if they would learn to read, they replied : If there is such power as this in those wonderful books, it belongs to the chiefs only, and the chiefs *only* shall be permitted to receive it. The missionaries yielded a ready assent to this idea, calculating upon the all-powerful example of the chiefs for the diffusion of light among the people.

Groups of dusky nobles met each day in huts or under the spreading branches of the tamarind or cocoa, to learn the names of the strange marks which the white foreigners would make upon stones, the sand, or on paper. At the outset, the missionaries understood not a word of the native language, while the natives knew no more of the English. The Hawaiian language possesses idioms and peculiarities common to no language beyond the limits of Polynesia. Not only are verbs corresponding to *be* and *have* entirely wanting, but there are no equivalent verbs to take their places. The sentence, *I am here, and have a horse,* in Hawaiian would be rendered, *Here I, and a horse, to me.* There are also many particles without any particular strength or even euphony save to Hawaiianize the language. Then, too, one sound is frequently substituted for another, at the whim of the speaker. The sound of the letters *K* and *T* are used indiscriminately. *D* takes the place of *L*, and *vice versa*. *R* becomes *Z*, etc., etc. With all these obstacles, it is wonderful with what rapidity the missionaries picked up the language, and taught the natives to pick it up or rather *out* from the crooked black marks which they had written upon paper. One can hardly conceive the ardor with which both teacher and pupil labored ; and when one native had, after intense labor, succeeded in deciphering the words written by some

friend at a distance, his pleasure at the newly discovered power almost exceeded bounds. The foreigners are gods, said they, and we shall soon be gods too. An alphabet was formed containing only twelve letters—the five vowels, *a*, *e*, *i*, *o*, and *u*, and the seven consonants, *h*, *k*, *l*, *m*, *n*, *p*, and *w*. The long sound of each vowel is the same as in continental Europe, while the consonants have their common English sound. Those sounds that were substituted for each other, were represented by the same letter. Thus the word spelled *Kapu* always, is frequently pronounced *Tabu*. The word *Kalo* is pronounced *Taro*, and *Hilo*, *Hido*, etc. Books were soon printed and multiplied. Permission was given, and most eagerly accepted, for the common natives to learn to read, and the Hawaiians of that early day may be regarded as a *nation* in search of knowledge under difficulties. "Never too old to learn," was emphatically their motto. Boys and girls, the middle-aged, and hoary-headed grandfathers and grandmothers tottered back apace from the very borders of the grave, to bask in this new light so suddenly beaming upon them from the East. The object of the missionaries was to evangelize this heathen people. Mythological legends and heroic poetry constituted their entire literature. Although their idols had been destroyed, and they were literally a people with no religion at the time the missionaries arrived, yet superstition, like a bird of ill omen, still hovered over them and excited in their minds vague apprehensions of impending evil. There were those who clung to the customs and gods of their ancestors, and frowned upon every attempt at innovation. The whole social fabric was festering and reeking with vice and crime, so foul as to cause a blush even upon the face of brazen Shame. These teachers, therefore, had not even the virgin soil upon which to commence their labor. They were obliged to pluck up brambles and noisome weeds, fill up quagmires, and cleanse out sink-holes of pollution. The work, however, advanced rapidly. The labor of teaching was gradually systematized, and schools with regular attendants soon took the place of "alphabetic conclaves." These schools were rude and humble at first, but the influences resulting therefrom are still the wonder of the world.

Among the first prominent schools was the high-school founded at Lahainaluna, in 1831, by Rev. Lorin Andrews. This school has been recently transferred to the Hawaiian government, and is still in a very flourishing condition. The young men cultivate their own food, upon land owned by the institution, and the salary of the teachers employed is paid by Government. The studies pursued are in the native language, and embrace, in addition to the common branches, instruction in moral and mental science, natural and revealed theology, and the mathematics embraced in "Day's Mathematics." This school is in charge of Rev. S. E. Bishop, assisted by C. B. Andrews and a native teacher. In 1840, the Royal School was founded by Mr. and Mrs. A. Cooke. This at first was accessible only to the children of chiefs and members of the royal family.

In this school were educated, in whole or in part, nearly all of the present nobility. It was gradually opened to the children of foreigners, and such common natives as were able to pay a moderate tuition. The building is constructed from the native coral, is large, airy, and convenient. It is supplied with modern furniture, and has a goodly amount of chemical and philosophical apparatus. This school employs five

teachers, has a regular attendance of one hundred and fifty pupils, and gives instruction not only in the lower English branches, but in the higher mathematics, natural sciences, and classics. It is supported entirely by Government, and the teachers are paid directly from the public treasury. Other schools which were founded at an early date and for a time flourished, doing much good, have been discontinued, while upon their ruins and around all, a common-school system has gradually developed itself, which, though far from perfect, commands the respect of all but chronic cavillers and fault-finders. Considering the fact that all the children in these various schools are the sons or grandsons of heathen, and considering the blending of republican and monarchical ideas in the foreign population, I regard the Hawaiian common-schools, with their dusky pupils and teachers, as marvels of progress. The population of these islands at the present time is about 60,000. The Inspector-General reported to the Legislature of 1868, an average attendance in the common-schools of 6,218, of whom 3,487 were boys. These children are all taught in the native tongue, and by native teachers, who are employed by the year, at salaries varying from \$12 to \$20 a month.

The studies pursued in these schools embrace spelling, reading, writing, mental and written arithmetic, and geography. They are entirely free, being supported by a direct Government tax. These free-schools are accessible to every child in the islands. Those wishing to learn English are transferred to the higher schools established for that purpose, and if the pupil is not able to pay, his tuition is remitted entirely.

In addition to these schools, supported *entirely* by Government, a large number of independent private schools receive a *per capita* subsidy—this premium being increased in proportion to the length of time the pupils remain at school. The last Legislature appropriated \$60,700 for the support of schools during the ensuing two years. This, I am informed, has already been expended, while the Board of Education, presuming upon the good sense of the next Legislature, have relaxed none of their efforts in lending aid wherever it was necessary.

They have in progress of erection in this city (Honolulu), for the exclusive benefit of the children of foreigners, a beautiful stone edifice that will cost over \$10,000. This building will accommodate two hundred pupils, and will be supplied with furniture and apparatus suitable for conducting the school according to modern ideas.

Besides the Government common and high schools, there are numerous private and parochial schools, many of which are very flourishing, and are doing much good. These are supported partly by tuition paid by the pupils and partly by subscription, or are sustained wholly by religious associations. In Honolulu the Roman Catholics and Reformed Catholics both have large and flourishing schools for girls. Miss Lydia Bingham, daughter of the veteran missionary of that name, has a very fine girls' school, while private and select schools for boys and girls are scattered about over the whole group. In these schools are taught about 1,000 pupils, making over 7,000 pupils in regular attendance at some school. But to the utilitarian mind, the mere statistics, in numbers, are unsatisfactory. What has education done for the natives of the Sandwich Islands? what is it doing now? I do not think there are 150 native Hawaiians over 15 years of age that cannot read or write. This, to a certain extent, has opened up to them the literature of civilized nations.

Nature is no longer, to them, the wizard's cave, and earth and air the realm of angry demons, as in days gone by. Their superstitions are dispelled or greatly weakened, and while they have not yet taken firm root in the new soil to which they have been transplanted, they are rapidly recovering from the shock caused by their removal from the bogs and fens of barbarism.

Among those who have left the schools are many able and competent teachers, who are doing quite as well as foreigners could do in their places. A large number of native ministers educated here are laboring faithfully in their calling, both at home and as missionaries abroad. We have sharp lawyers, and editors that do no dishonor to the press. Those who have met the late venerable Kekuanaoa, father of the present king, the venerable John Ii, Judge Kamakau, the President of the Board of Education, and many other pure natives whom I might mention, will bear evidence that education and civilization are not confined to Anglo-Saxons, and that "nature's noblemen" are not all of the Caucasian race.

J. R. K.

PEDAGOGICAL NONSENSE.

MR. EDITOR:—Permit me, on behalf of a large and useful class of the community, whose interest it is the duty of the *MONTHLY* especially to defend, to take exception to a sentiment of the founder of Kindergarten Schools, as stated in your last issue. It reads thus:

"One of Froebel's first conditions in regard to the establishment of a Kindergarten, and one on which, in conversation, he used to dwell long, and express himself with unmistakable decision, was that it should not be made a matter of pecuniary speculation on the part of any individual."

If this is to be the ruling sentiment of the Kindergartens established amongst us, the position of instructor in any one of them will not be a place to be greatly desired. More might be said with truth; for, to young men and women seeking to earn a livelihood, or to establish themselves in society, the office would rather be one to be shunned. Under such a system, it would be easy to surmise what would be the calibre of the Teachers the nation would be likely to obtain.

In Froebel's day and generation, an inch of ribbon, an order, or a title, was a prize to be coveted as well as money. Here men are commonly graded according to their command of the latter. With us, Croesus rides in his chariot while Socrates walks. If men and women were rewarded according to the value of their labors, the relative positions of educators and money-changers would doubtless be widely different. But right or wrong, things are as they are, to be made better if we can. In view of this, I would respectfully dissent from the silly sentimentality which would degrade still lower the money-value of educational labor. It is simply unreasonable to rule intellectual instructors as superior to that desire for acquisition which governs other members of society. Were fifty Kindergartens opened in this city on the principle of abjuring money considerations, many other schools in the State would soon have reason to regret their existence, unless philanthropic butchers, bakers, grocers, and tailors would come under the same rule, and cease, likewise, to make the articles they deal in "matters of pecuniary speculation."

NEW YORK, October, 1869.

R. W. H.

EDUCATIONAL INTELLIGENCE.

VIRGINIA.—The first annual report of the Board of Education of the city of Petersburg (for 1868-9) is worthy of special notice, from the fact that it records the first year's working of the public schools of the pioneer city of Virginia, if not of the entire South, in the work of providing free education for all classes. In February, 1868, Dr. Sears, as agent of the Peabody Educational Fund, offered the city \$2,000 from that fund, to aid in the establishment of a system of public education, on condition that the city should raise \$20,000 additional for the same purpose. No action was taken on Dr. Sears's proposition until the following May, when a committee was appointed by the common council to prepare a plan for conducting the free-schools of the city. The committee reported in June, recommending the abolition of the existing system, and the creation of a Board of Education, to have charge of all the schools of the city. It was further recommended that separate schools for white and colored children should be established, sufficient to accommodate all that should apply. The report was adopted June 16th, and on the 22d the council appointed a Board of Education, which immediately set to work to put the existing school-buildings in good repair, and to provide other buildings for a High-School, and for four schools for colored children. Up to that time the city had been educating imperfectly an average of less than 300 white children, at a cost of \$5,000. The committee, in submitting their plan, expressed the hope that under the new conditions they would be able to provide a better education for 1,200 children for \$10,000, in addition to the sum promised by Dr. Sears. The hopes of the committee have been realized, and more. There were enrolled in the public schools of the city, the year ending April 1st, 1869, as many as 1,750 different pupils, with an average attendance of over a thousand, nearly half of whom were whites. The cost of the schools for the year was nearly \$16,000, of which the city furnished \$11,000, the Peabody Fund \$3,000, and the Freedman's Bureau \$1,400.

TENNESSEE.—The State Superintendent of Public Instruction has issued a circular giving "facts, figures, and results," of the free-schools of Tennessee, up to July 12th, 1869. The present school-system of this State was established in March, 1867. The Superintendent entered upon his duties the following October. The statistics given cover a period somewhat less than two years:—Number of counties in the State, 84; number from which reports had been received, 63. Number of schools opened, 2,431—for whites, 2,129; colored, 302. Different teachers employed, 2,462; males, white, 1,849; colored, 122; females, white, 418; colored, 73. Number of scholars enrolled, 135,732: white males, 62,782; females, 54,142; colored males, 9,114; females, 9,694. Number of school-houses built since the organization of County Superintendency, 385; number burnt or destroyed in the same time, 37. Amount of funds drawn from the State, \$423,321. Average cost for instruction of a scholar in free-schools for the term of five months, \$3.59. Average tuition of a scholar for the same term in other institutions of learning in the State, \$10.96.

KANSAS.—From the summary of statistics furnished by the State Superintendent in his report for 1869, we select the following items of general interest. Number of persons of school age (between five and twenty-one years of age), 76,150: increase for the year, 13,240. Number enrolled in the public schools, 45,140; increase for the year, 5,691. Number of pupils in other educational institutions, 2,169—about half the number reported the year before. The whole number in public schools and other institutions of learning, 47,209, an increase of 3,611. Average daily attendance, 27,238. Average time schools were taught, five months. Number of male teachers employed in public schools, 746; increase, 205. Number of female teachers employed, 855; increase, 191. Average wages of male teachers, \$39.56 a month; of female teachers, \$29.08. Total of teachers' wages, \$203,878. Number of school-houses, 953—log, 271; frame, 472; brick, 28; stone, 182. Increase for the year, 250. Value of the school-houses, \$813,062; increase, \$239,372.¹ Total productive school fund, \$518,813. Income of schools from all sources, \$429,215; increase, \$86,943.

The only item that shows, or seems to show, a falling off in the prosperity of the schools of Kansas, is that which gives the attendance at select schools, seminaries, academies, and colleges. These institutions report only 2,169 pupils. The year before they reported 4,243. Whether this decline is to be attributed to the successful rivalry of the public schools, or to some less desirable cause, the Superintendent does not say.

The fact that the average daily attendance at all the schools is not more than half the *actual* school population—that is to say, half those between the ages of six and sixteen—while the average length of school is only half the school-year (five months), would seem to show that the competition between public and private schools cannot be very severe, certainly not severe enough to send the latter to the wall.

CURRENT PUBLICATIONS.

WE began the perusal of Madame Cavé's little book¹ with no prejudice in its favor. Our impression, founded upon a hasty turning of the leaves, was rather against it. An instruction-book on the Art of Drawing, without a single diagram, and with no rules in italics, was so contrary to precedent that we felt there was but faint promise of even fair performance in the system.

We laid down the book, after having read it through, with the conviction that no better guide for teacher or pupil has ever met our notice. We hope the method will be tried faithfully in this country. The writer is an artist; but the technicalities of Art, or even the ordinary scientific terms pertaining to projections and natural perspective, are not employed in her familiar instructions.

¹ Drawing Without a Master: a method of learning to draw from memory. By Madame Marie Elizabeth Cavé. New York: G. P. Putnam & Sons.

CAVÉ on Color,¹ a little book by the same author, deserves to be read by all who are interested in Art, even though they are not students or teachers of drawing or painting. The true aim of Art is everywhere insisted upon by this pleasant author, and the increased delight one experiences in studying nature, is offered as the reward of the student.

In his Elements of Astronomy,² Mr. Loomis presents the leading facts of the science as revealed by the latest discoveries, in a manner so familiar that the book may be studied with profit by the higher classes in the grammar-schools. The style of this painstaking and successful author is too well known to require comment here.

PRESIDENT WOOLSEY has reprinted in a fair twelvemo volume, the series of articles on Divorce and Divorce Legislation³ contributed by him to *The New Englander* during 1867 and 1868. The scope of the work is indicated by the subjects of the several chapters, which are : I. Divorce among the Hebrews, Greeks, and Romans ; II. Doctrine of Divorce in the New Testament ; III. Law of Divorce in the Roman Empire, and in the Christian Church ; IV. Divorce and Divorce Law in Europe since the Reformation ; V. Divorce and Divorce Law in the United States ; VI. Attitude of the Church toward Divorce Law and Principles of Divorce Legislation.

MESSRS. J. B.⁴ LIPPINCOTT & Co. have begun the publication of a series of French reading-books, with Voltaire's Charles XII., to which is added an English Vocabulary by Gustave Masson. The publishers trust that from the correctness of their texts, which are printed in Paris, that the series will obtain the same success they have earned in France. The plates of the initial volume bear evidence of no inconsiderable use.

AMONG the most acceptable of our exchanges we count *Hearth and Home*,⁵ a praiseworthy and very successful attempt to supply first-rate reading to families. It is a witness, and we believe a thriving one, of the growing taste for a better order of literature among our rural and semi-rural population. It is a witness, too, that some country families prefer good reading above the trash that is commonly offered them.

WE rejoice to see the resuscitation of the *Rhode Island Schoolmaster*; and still more to see the evidences of vigor with which it sets to work again. If its improvement may be in any way attributed to its brief suspension, it would be a good experiment to allow some other school magazines that we know to lie fallow for a time.

¹ The Cavé Method of Drawing : Second Part, Color. By Madame Marie Elizabeth Cavé. New York : G. P. Putnam & Sons.

² Elements of Astronomy, designed for Academies and High-Schools. By Elias Loomis, LL. D. New York : Harper & Brothers.

³ Essay on Divorce and Divorce Legislation, with special reference to the United States. By Theo. D. Woolsey, President of Yale College. New York : Charles Scribner & Co.

⁴ Histoire de Charles XII., par Voltaire. Philadelphia : J. B. Lippincott & Co.

⁵ Hearth and Home : a family Weekly Newspaper, edited by Donald G. Mitchel and Harriet Beecher Stowe. New York : Pettengill, Bates & Co. Single copies \$4. To clubs of five or more, \$2.40 each.